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of Higher Education**

**A reflective and quantitative investigation of relationships between
aural dictation, sight singing, performance and composition skills.**

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I, Melissa Jo Rogers, hereby declare that this thesis is my own work, all persons consulted and all assistance rendered are fully acknowledged, all references used are indicated in the text and accurately reported in the list of references, the substance of this thesis has not been presented in whole, or part by me, to any other institution for a degree.

Date: 13/11/12

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Abstract

This study combined two independent investigations into the relationships between aural dictation, sight singing, performance and composition skills. The first investigation involved the composition of a suite of piano pieces as a means of reflecting on the functional relationships between these skills. These reflections found evidence for strong relationships between skills. The second investigation involved results obtained from the NSW Board of Studies Music 2 2010 and 2011 HSC Examinations. Data was taken from the mandatory aural dictation, sight singing, performance and composition examination tasks. The statistical correlation between each task was examined with the highest correlations being between aural dictation and sight singing. Further analysis of top achieving students found that top results in multi-part aural dictations were the best predictor of high achievement in other skill areas including sight singing, performance and composition.

Contents

I	Review of Relevant Literature	4
1	Developing Aural and Visual Analysis Skills	6
	Sight Singing and Aural Dictation	7
	Notational Audiation	8
	Tonality	9
	Texture and Timbre	9
	Memory	10
	Practice	11
	Error Detection	12
2	Developing Performance Skills	13
	Aural and Visual Analysis	13
	Sight Singing	14
	Memory	15
	Composition and Improvisation	15
	Conducting	16
3	Developing Composition Skills	17
	Aural and Visual Analysis	17
	Performance and Improvisation	18
4	Implications	20
II	Research Methodology	21
5	Qualitative Reflective Research Method	24
	Description of Reflective Research Methodology	24
	Reflective Research Design	25

Research Instrument Employed	25
Methodological Assumptions	26
Limitations	26
6 Quantitative Research Method	27
Description of Quantitative Research Methodology	27
Quantitative Research Design	28
Research Instrument Employed	28
Selection of Participants	30
Data Analysis Processes	30
Methodological Assumptions	31
Assumed Limitations	31
Integrating Reflective and Quantitative Research Methods	32
III Results and Discussion	33
7 Qualitative Reflective Research	35
Compositional Framework	35
Instrumentation	35
Form	36
Tonality	36
Compositional Process	37
Reflective Analysis	38
1. Aural Dictation and Sight Singing	39
2. Aural Dictation and Performance	39
3. Aural Dictation and Composition	40
4. Sight Singing and Performance	40
5. Sight Singing and Composition	41
6. Performance and Composition	41
Summary of Findings from the Reflective Research Method	43
8 Quantitative Research	44
Aural Dictation	44
Sight Singing	45
Performance	46

Composition	47
General Trends and Findings	48
Correlational Analysis of the Cohort	49
1. Aural Dictation and Sight Singing Skills.	49
2. Aural Dictation and Performance Skills.	50
3. Aural Dictation and Composition Skills.	51
4. Sight Singing and Performance	52
5. Sight Singing and Composition	52
6. Performance and Composition	53
General Trends and Findings	54
Comparative Analysis of Top Achievers	56
Methods for Isolating Top Achievers	56
Data Analysis of Top Achievers	57
General Trends and Findings	64
Summary of Findings from the Quantitative Method	64
9 Integration of Findings from Reflective Research and Quantitative Analysis	65
1. Aural Dictation and Sight Singing	65
2. Aural Dictation and Performance	66
3. Aural Dictation and Composition	66
4. Sight Singing and Performance	66
5. Sight Singing and Composition	67
6. Performance and Composition	67
IV Conclusions	69
Implications for Further Research	70
Final Conclusion	72
A 2010 Aural Dictation	79
B 2011 Aural Dictation	81
C 2010 Sight Singing	83
D 2011 Sight Singing	85

List of Figures

4.1	Research Methodology Overview	23
8.1	Histograms of Aural Dictation Results	45
8.2	Histograms of Sight Singing Results	46
8.3	Histograms of Performance Results	47
8.4	Histograms of Composition Results	48
8.5	Scatter Plot of Aural Dictation and Sight Singing Results	50
8.6	Scatter Plot of Aural Dictation and Performance Results	51
8.7	Scatter Plot of Aural Dictation and Composition Results	51
8.8	Scatter Plot of Sight Singing and Performance Results	52
8.9	Scatter Plot of Sight Singing and Performance Results	53
8.10	Scatter Plot of Performance and Composition Results	53
8.11	Pie Charts Comparing Top Achieving Students for Aural Dictation and Sight Singing.	58
8.12	Pie Charts Comparing Top Achieving Students for Aural Dictation and Performance.	59
8.13	Pie Charts Comparing Top Achieving Students for Aural Dictation and Composition.	60
8.14	Pie Charts Comparing Top Achieving Students for Sight Singing and Performance.	61
8.15	Pie Charts Comparing Top Achieving Students for Sight Singing and Composition.	62
8.16	Pie Charts Comparing Top Achieving Students for Performance and Composition.	63

APPENDICES

79

A.1	Aural Dictation Question from the 2010 Music 2 HSC Examination .	80
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B.1	Aural Dictation Question from the 2011 Music 2 HSC Examination . .	82
C.1	Sight Singing Exercises from the 2010 Music 2 HSC Examination . .	84
D.1	Sight Singing Exercises from the 2011 Music 2 HSC Examination . .	86

List of Tables

7.1	Strength of Skill Relationship Found with Reflective Analysis	43
8.1	Correlation Differences for Each Skill Combination	54
8.2	Marking Ranges Chosen to Isolate Top Achievers	57
8.3	Number of Top Achieving Students for Each Skill Area	64

Introduction

As a performing musician I enjoy all aspects of musicianship. As a secondary school music teacher I enjoy participating in and facilitating musical development in others. I have always believed that the best teachers are those who continuously strive for excellence in the skills that they endeavor to teach, both for themselves and on the part of their students. In recent years I have made an effort to compose each day, continue personal instrumental practice and engage in regular listening of new and familiar repertoire. As I participated in these activities along with my teaching commitments, I developed an interest in the way these activities were interconnected. I noticed that my thinking patterns, when practicing on my instrument, were affected by pieces to which I had recently listened as well as those I had been composing. I also noted that my own compositions were changing as I performed different repertoire, and listened to new pieces. I noticed my ability to appreciate music deepen with my developing composition and performance skills. It seemed that while each activity harbored its own distinct set of skills, these activities offered benefits and a deeper musical understanding when combined.

I began to question the manner in which these areas may be connected. Could the connections be expressed quantitatively? Are there measurable benefits when musicians participate in and achieve at high levels in a broad range of musical activities? Do any skills function as a predictor of success in other musical areas?

To explore these questions I began to devise a way to consider areas of my own musicianship more sensitively and intentionally. I planned a suite of compositions using a variety of methods taken from aural dictation and sight singing. I wanted to see how an integrated approach to composition, using these specific skills, might impact my output as a composer and my level of aural dictation and sight singing competence. I was also curious to discover how this approach might impact the subsequent performance of these works. This formed the basis of an exploration into the nature of the relationships between these skills on a personal and very practical level.

I also began to consider how these connections might be observed and quantitatively analysed in other musicians, particularly young artists. My experience as a secondary school music teacher in NSW Australia provided an educational context for these observations. It became apparent that the students preparing for the Music 2 Higher School Certificate (HSC) Examinations, as outlined by the NSW Board of Studies Syllabus, were developing all of these skills. These students were required to demonstrate musicological competence through various analytical tasks including aural dictation, sight singing, presenting a performance and submitting a composition. This suggested a plan to obtain quantitative data from the Music 2 HSC Examination so that correlations between these skill areas could be considered.

Of particular interest was the way aural dictation and sight singing skills contribute to the composition process, and also success as a performer. The data from these two sections of the HSC Examination, along with the performance and composition data, comprised the four areas used for correlational analysis.

In this thesis, my own reflections as a practicing musician are presented following the carefully devised compositional approaches used for the works submitted in Appendix E. These approaches were guided by the terminology found in the Music 2 HSC Syllabus. The data from the 2010 and 2011 Music 2 HSC Examinations is also presented and analysed within a context of relevant literature. The combination of reflective and quantitative frameworks of exploration for the research questions aims to provide fresh perspectives for music scholarship.

Definitions

This study focuses on a wide range of musical skills including analysis, performance and composition. As the areas of *aural analysis* and *visual analysis* encompass a range of analytical skills, two specific skills have been chosen for this research project. The chosen skills are *aural dictation*, which is considered a sub-skill of aural analysis, and *sight singing*, which is considered a sub-skill of visual analysis.

For the purposes of this paper, the term *aural dictation* refers specifically to the skill of hearing music and notating it correctly using traditional Western notation. The term *multi-part* refers to dictations with two or more layers of sound, of which one layer is to be singled out for notation. The term *multi-timbral* refers to dictations that have two or more different instruments as part of the sound layers. The term *post-tonal idioms* refers to tonalities which lie outside the definition of modality and tonality. This may include music with strong chromaticism, jazz tonalities, or atonality.

The term *sight singing* refers specifically to the skill of singing unfamiliar or unheard musical material, from traditional notation, with little or no preparation time.

While two specific analytical skills have been chosen for consideration, performance and composition are two broad areas which have many sub-skills. In this paper, the term *performance* is used to encompass the preparation and presentation of musical material. The term *composition* refers to the intentional creation of new musical material.

The term *musicianship* is used to articulate all processes of musical development including aural and visual analysis, performance and composition.

Part I

Review of Relevant Literature

The acquisition of a wide range of musical skills is of great value for the developing musician. While much research advocates the benefits of multiple skill development this is often on the basis of unstated or untested assumptions. This review explores literature contributing to the discussion on skill relationships in the areas of aural and visual analysis, performance and composition skills.

Chapter 1

Developing Aural and Visual Analysis Skills

Music educators and theorists strongly advocate the importance of developing aural and visual analysis skills. These skills have been described as “the foundation upon which all higher level skills are built, (Hansen, 2005, p. 5). Wheeler (2007, p. 35) further states that ear and eye skills are foundational to the whole enterprise of music making. The purpose for fostering these foundational skills is to develop in students the ability to recognize and understand musical relationships (Sisley, 2008, p. 15). The key idea conveyed here is that relationships exist among the many musical disciplines such as analysis, performance and composition. The development of aural and visual analysis skills is seen by Sisley (2008) to be an integral part in aiding the understanding of these relationships. Klonoski (2006, p. 56) claims that the goal of this training focus is “to teach students to integrate the various musical components of real compositions into a meaningful, informed listening experience.” This broadly based support for the importance of aural and visual analysis is also advocated by Karpinski (2000, p. 4); music listeners who understand what they hear are thinking in music. Music readers who understand and auralise what they read are thinking in music. This concept of “thinking in music” (Karpinski, 2000, p. 4) or “thinking in sound” (Gordon, 2003) is audiation.

Audiation is a skill that encompasses a wide variety of musical endeavors including many aspects of performance and composition (Gordon, 2000, p. 12)¹. Gordon (2003, p. 9, 10) argues that audiation forms the basis of musical development. He advocates the pedagogical practice of teaching musical acquisition with the same

¹Gordon (2001, p. 4) identified eight musical activities where audiation occurs: when listening to familiar or unfamiliar music, when reading silently, singing, or performing from notation, when notating familiar or unfamiliar music through dictation, when recalling familiar music silently or through performance, when notating familiar music from recall, when creating or improvising unfamiliar music silently or through performance, when reading while creating unfamiliar music and when notating improvised or created music.

principles as language development. He explains that “audiation is to music what thought is to language” (Gordon, 2003, p. 25). Audiation is also described by Gordon (2000, p. 9) as “the assimilation and comprehension of the sound itself” or can be alternatively viewed as hearing and comprehending music in the mind when no sound is present (Hansen, 2005; Sisley, 2008, p. 6). Klonoski (2006, p. 54) firmly upholds the development of critical listening skills. Essentially, music is sound. Therefore the development of an attuned musical ear will no doubt strengthen the development of all other musical skills (Gordon, 2007, p. 3).

Hansen (2005, p. 5) underscores the importance of audiation as a foundational skill for the development of analysis, performance and composition. It is described as providing the basis for the variety of skills which are necessary for the rich development of musicianship (Cross and Hiatt, 2006). Audiation is considered a key skill for enabling musicians to reach their full musical potential (Gordon, 1999). Therefore, audiation should not be considered a skill particularly linked only with aural and visual analysis, but rather a foundation skill on which all other musical skills should develop.

While the fields of aural and visual analysis are multifaceted, this discussion focuses on literature that identifies significant skills which contribute to successful aural dictation and sight singing acquisition. The similar skills needed for aural dictation and sight singing demonstrate strong links that exist between these two skills. These skills encompass an understanding of tonality, comprehension of texture and timbre, the ability to engage in notational audiation, the development of memorisation skills through practice and also accurate error detection.

Sight Singing and Aural Dictation

While singing is considered extremely valuable for the development of audiation (Gordon, 2004, p. 10), and music education in general (Tacka and Houlahan, 1995, p. 4), sight singing is one of the foundational companion skills for aural dictation acquisition. Harrison et al. (1994) demonstrate through the methodology of their research, that aural dictation and sight singing are skills which are extremely closely related. These two skills are the focus for a research project on motivation and musical aptitude. Sisley (2008) also emphasises the importance of linking the skills of aural dictation and sight singing. Musicians are recommended to develop a recognition of musical patterns through sight singing (Sisley, 2008, p. 14). Sisley (2008, p. 12) claims further that unless students can sing, they will not be able to build a vocabulary of tonal patterns that are imperative for aural dictation acquisition and aural analysis training. Telesco (1991, p. 179-190) also strongly claims that sight

singing is a vital way of improving aural analysis. Kodály emphasises the importance of sight singing (Kodály, 1974, p. 187) and choral part singing (Kodály, 1974, p. 190) for the development of any musical student. Damschroder (1995) and Cleland and Dobrea-Grindahl (2010) utilise this educational philosophy by providing aural dictation texts where sight singing is strongly integrated in the pedagogical approach.

Notational Audiation

While the relationship between sight singing and aural dictation may be strong, most situations where musicians will encounter aural dictation exercises require the musician to remain silent during the aural dictation process. These situations often include high school and university examinations such as the Australian Music Examinations Board (AMEB), Associated Board of the Royal Schools of Music (ABRSM) and Trinity performance examinations. Thus, the student needs to develop the ability to complete aural dictations without vocalising. This ability is described by Gordon (2000, p. 9, 12) as *notational audiation*, the ability to make musical sense of a score by hearing it internally (Hansen, 2005, p. 4). This skill is also explained by Sisley (2008, p. 15) as the ability to mentally create or recreate auditory images without singing, playing or otherwise outwardly reproducing the pitches. Kodály quotes Schumann on this point: "The good musician understands the music without a score as well as understands the score without the music. The ear should not need the eye, nor the eye the ear" (Kodály, 1974, p. 192). *Pitch internalisation* (Sisley, 2008, p. 15) and *subvocalisation* (Johnson and Klonski, 2003; Klonski, 2006) are other terms which have been used to describe this same skill. Musicians may also be encouraged to experiment with silent whistling, silent singing or humming in an effort to develop notational audiation skills (Johnson and Klonski, 2003). Notational audiation forms one part of the broad skill of audiation (Gordon, 2000, p. 14). As well as notating music through dictation, notational audiation also refers to the ability to notate music from recall, to read music while creating unfamiliar music and the process of notating improvised or composed music (Gordon, 2001, p. 4). Notational audiation is a vital skill for the completion of any aural dictation task.

Tonality

A firm understanding of tonality is also important for the successful completion of any aural dictation or sight singing task. While Sisley (2008, p. 18) emphasises the importance of mastery of tonal and rhythmic patterns, Portillo (2006, p.72) also states that an emphasis on post-tonal aural understanding is becoming increasingly important. Hansen (2005, p. 9) comments on the benefits of using vertical structures when analysing post-tonal art music of the late 20th century. To do this, musicians need to be able to aurally and visually identify all major and minor intervals as well as the tritone, without the context of a tonal centre. Musicians also need to recognise trichords or clusters of varying tonalities. However, Sisley (2008, p. 20) notes in her brief review of textbooks for aural analysis, that most texts “contain a small amount of post-tonal music examples, though not enough to be significant”. The text by Bowman and Terry (1993) provides melodic and two-part aural dictations in baroque, classical and romantic tonalities. In the section on 20th century music, no aural dictation opportunities are given. This is similar to the text *Listen and Sing* by Damschroder (1995). The Benward (1985) text *Advanced Ear Training* also provides progression from early baroque to 20th century idioms, including pentatonic, whole tone, and modal scales. Melodic dictations are then given using these tonalities (Benward, 1985, p. 115, 116). Benward (1985, p. 123-125) also focuses on identifying trichords, tetrachords of post-tonal idioms, whole tone chords, 9th, 11th, 13th chords, chords of omission, quartal chords and added tone chords. This is a comprehensive and intentional inclusion of a large range of tonalities. Cleland and Dobrea-Grindahl (2010) also provide a full progression from major and minor tonalities, to modal and post-tonal melodic and harmonic structures with opportunities for dictation. As pedagogical tools for aural dictation have continued to be developed, more focus has been given to the inclusion of post-tonal aural development along with traditional tonalities.

Texture and Timbre

Another important skill that musicians need to develop for the completion of aural dictations is the ability to aurally identify single and multiple parts as well as multiple timbres. Karpinski (2000, p. 111) claims that multi-part dictation, although difficult, is an important component of musical training that is often neglected and underdeveloped in musicians. Some research has been done to investigate how multi-part dictations are processed neurologically (Gregory, 1990). Gregory (1994) indicates that multi-part dictation retention is enhanced when dictations are related in

key and employ traditional tonalities. Gregory (1994) also emphasises the importance of timbre for listeners attempting to distinguish between parts. Multi-part dictations are completed with much more ease by musicians when there are a variety of timbres used in the excerpt, rather than all parts of a single timbre (Gregory, 1994; Hansen, 2005). The ability to complete multi-part dictations is based on a well-developed aural understanding of harmonic conventions (Levin and Martin, 1998, p. 44). Bowman and Terry (1994) and Cleland and Dobrea-Grindahl (2010) place a strong emphasis on developing harmonic relationships in an effort to aid the acquisition of melodic and multi-part dictations in a tonal context. Portillo (2006) has applied this notion to post-tonal multi-part dictation by exploring approaches to sequencing trichordal and tetrachordal class sets. She analysed sequences suggested by a range of researchers and then suggested helpful ways that class sets can be constructed to emphasise harmonic similarities or dissimilarities.

Memory

For sight singing and aural dictation to be executed correctly, another vital companion skill is that of memorisation. The development of musical memory is complementary to notational audiation. Gordon (2003, p. 30) explains that musical memory assists audiation, and audiation stimulates the development of musical memory. Sisley (2008, p. 17) insightfully argues that long-term and short-term memory are both important aspects in completing aural dictations. Further, the tonal and rhythmic patterns absorbed in the long-term memory are instrumental for the successful function of the short-term melodic memory during an aural dictation exercise (Karpinski, 2000, p. 64). Musicians have various ways of remembering the material needed to complete an aural dictation or sight singing task. In his research Karpinski (2000, p. 66) noticed that some musicians remember specific pitch intervals and others remember the general melodic contour. DeWitt and Crowder (1986, p. 271) indicate that the mind tends to differentiate between melodic contour retention and intervallic information. As a result, many musicians have strengths in memorising certain aspects of a melody yet may need to develop skills in memorising other aspects. Karpinski (2000) recommends *extractive listening* (Karpinski, 2000, p.71) and *chunking* (Karpinski, 2000, p. 73-75). This is an approach which is supported by Hansen (2005, p. 8) encouraging musicians who are completing aural dictations to first listen to, then memorise what they hear. Only when an excerpt has been memorised should it be notated. Kodály also suggests that it is important to practice the art of dictation to the point where one can write down a melody after just one hearing (Kodály, 1974, p. 197). Clearly, the development of memory

is an integral aspect of aural and visual analysis.

Practice

Like most musical endeavors, the acquisition of any skill can only take place through repetitive practice (Sisley, 2008, p. 18). Henry and Killian (2005) investigated the benefits of practice for improving sight singing skills by giving high school musicians two different melodies to sight sing, one with a short preparation time and one without. Significantly higher accuracy was observed when students were given time to practice. Further, successful students were more often involved in a variety of other musical activities which, explicitly and implicitly, provided other opportunities to improve sight singing skills.

The large quantity and continued production of aural analysis text books clearly demonstrates a recognition that musicians need to practice in order to improve. These texts invariably provide emphasis on different aspects for practice. *Aural Matters* by Bowman and Terry (1993) provides sixteen opportunities to practice melodic dictation. However, most exercises do not expect the student to write the entire melody. Some cues are included at the beginning, middle and end. For two-part dictation eleven opportunities are given for practice. Some two-part dictations require the student to complete parts of both melodies in which case cues are given throughout these practice excerpts. Bowman and Terry (1993), in *Aural Matters in Practice*, give more opportunity for dictation practice. Both texts by Bowman and Terry provide recordings for students to independently develop their dictation skills. While Warburton (1971, p. 81-96) provides an exhaustive collection of tests, these are limited by the need for an instructor to perform the excerpts for dictation practice. Cleland and Dobrea-Grindahl (2010) and Damschroder (1995) give some opportunity for students to undergo personal practice at the conclusion of each topic. However, there are less texts available for students who wish to exhaustively practice multi-part dictation in tonal and especially post-tonal idioms. These texts demonstrate the overwhelming emphasis on tonal excerpts for dictation practice. It is contended that more texts could be developed with an emphasis on post-tonal idioms. Nevertheless, existing texts do indicate the importance of aural dictation practice.

Error Detection

For regular practice in aural dictation and sight singing to be most beneficial, it is imperative that musicians develop the ability to detect errors (Sisley, 2008, p. 35). Crawley et al. (2002, p. 377) indicate that many people may develop the skill of error detection without any formal musical training. The study found that musicians and non-musicians responded similarly to subtle changes in three-part listening challenges. Killian (1991) investigated another facet of error detection, focusing on the relationship between sight singing ability and error detection. Killian (1991) found that for high and medium scoring sight singers, there were no significant differences between sight singing and error detection ability. The ability to detect errors is an important skill not only for dictation and sight singing but for a whole range of musical disciplines.

Another important aspect associated with error detection is the speed of acquisition. Sheldon (1998) researched the effects of multiple listenings on error detection for four-part multi-timbral listening excerpts. Participants were given three listenings and after each they identified any mistakes noticed on a provided score. While most participants were able to find errors in the top two voices, most difficulty occurred when trying to identify errors in the bottom voice. Further difficulty occurred when excerpts were given in a polyphonic texture. While it is not surprising that the inner parts were more difficult to identify, this could have been affected by levels of rhythmic intricacy, timbre and dynamics. Bigand et al. (2000, p. 270-278) found that participants were better able to detect errors in polyphonic music when the keys of the tunes were identical or closely related. If the keys were unrelated, participants benefited from repeated listening, and from hearing parts separately. Sheldon (1998, p. 384-395) found that error detection can be improved with the development of sight singing and multi-part aural skills training within a context of education for conductors. Error detection is therefore a vital skill for the successful completion of aural dictation and sight singing exercises.

The process of completing an aural dictation or sight singing task should be wholistic, drawing on a variety of skills (Klonoski, 2006, p. 59). For a musician to successfully complete a task they will inevitably use an integrated approach employing notational audiation, memorisation and error detection. These skills are imperative for melodic or multi-part dictations. However, across the literature, the ability to complete multi-part dictations is regarded as more difficult, requiring a high level of proficiency in the skills identified in this discussion. The integrated nature of the skills involved with aural dictation and sight singing imply the possibility of further relationships with other significant musical disciplines such as performance and composition.

Chapter 2

Developing Performance Skills

Researchers of music performance have long been interested in identifying and examining the development of performance skills, and the various contributions of these skills in producing a fine performer. While there is a wide range of sub-skills that contribute to performance technique¹ the emphasis of this review is on skills that are primarily related to the other focus disciplines.

Aural and Visual Analysis

The development of aural and visual analysis skills are fundamental functions for any performer. Westney (2003) emphasises the importance for performers to recognise the aural implications of a performance. Westney (2003, p. 81) stipulates that performance practice is much more effective when enhanced through a developed sense of aural awareness. Williamon (2004, p. 88) further advocates a balance between “playing practice” and “non-playing practice” where the well-developed ear will contribute to the practice routine through aural and visual analysis. Non-playing practice is also advocated by Rosenthal et al. (1988) and Cross and Hiatt (2006) where silent visual analysis and notational audiation are described as being particularly important for developing a meaningful musical performance. Audiation as a whole (Gordon, 2003, p. 9, 10) plays an important part in developing performance skills. In performance, audiation is “when the ears become more important than the fingers” (Gordon, 2000, p. 12). Williamon (2004, p. 92) also stresses the benefits of aural development for communication through performance: "in order to exploit all the possible cues inherent in a score, performers should activate their analysis and ear training skills." Sternbach (2009) also argues that developing acute aural

¹Parcutt and Macpherson (2002) identify a variety of sub-skills that contribute to performance development: improvisation, sight reading, practice, memory, intonation, structural and emotional communication, body movement and listening.

analytical skills will help improve performance accuracy, resulting in less practice time and more confident musical performances.

Aural and visual analysis can also play a major role in the way performers learn new repertoire. McPherson (1996) studied relationships between a variety of practice strategies including aural memorisation as a means of learning new pieces. While the development of aural analysis contributes to improved accuracy and better practice strategies, Highben and Palmer (2004) also found that pianists with higher aural analysis skills were able to perform better by memory. Kodály (1974, p. 187) emphasises the role of aural analysis for internalising a piece of music: "your pieces must not be in your ten fingers only: you must also be able to hum them without a piano," emphasising the role of aural analysis for internalising a piece of music. Juslin (2000) also advocates the importance of aural analysis for those listening to and appreciating musical performance.

The relationships between aural analysis and performance can be further demonstrated through a variety of pedagogical tools which integrate the acquisition of these skills. O'Toole (2003, p. xi) provides a resource for performance ensemble directors focusing on an interdisciplinary approach to performance acquisition and aural analysis in an ensemble setting. Brockmann (2009) also presents a musical workbook which conveys a philosophical link between the acquisition of aural analysis and performance.

Sight Singing

Along with the development of aural analysis skills, sight singing is known to be a beneficial aspect of visual analysis for enhancing performance practice. Bernhard (2003) comprehensively reviewed literature which indicated significant links between sight singing and improved performance skills. This idea is also put forward by Bruser (1997) and Sternbach (2009). Singing has been described as a particularly important skill for performance development on instruments such as the guitar and piano. These instruments do not require the performer to produce air flow for pitch production, nor do they require pitch adjustment as is necessary on other string instruments. Singing is therefore considered an important skill for the development of a musical performance especially on instruments such as the guitar and piano (Bruser, 1997, p. 167-8). While sight singing has been advocated as a beneficial aspect of any stage of performance development, Rosenthal et al. (1988) found that as musicians mature, the strength of correlation between sight singing and other practice conditions improves.

Memory

Another skill integrated with performance development processes is that of memorisation. Although the area of performance research and memory is vast and beyond the scope of this study, it is worth briefly noting a few studies that indicate the importance of memory development for the discipline of performance. Palmer (1997) investigated various aspects of the links between performance and cognitive and motor skill development, as related to memorisation and performance perception. McPherson (1996) also found that relationships between various performance skills, including memorisation, strengthen as musicians mature in the acquisition of their performing skills. Gordon (2003, p. 30) emphasises that the difference between musical memory and memorisation is the ability to audiate. For example, when a mistake is made during performance, the way this is dealt with will demonstrate either memorisation or musical memory: “for the child who has memorised there are wrong notes. For the child who is audiating there are appropriate solutions” (Gordon, 2003, p. 31, 32). Musicians who have a well-developed musical ear also tend to excel in memorised performances (Highben and Palmer, 2004). Memorisation is also encouraged as a way of improving performance communication (Williamon, 2004, p. 92). Therefore, memory is not only an integral part of performance acquisition, but also a significant contributor to the success of the performance.

Composition and Improvisation

In many aspects improvisation represents an important interdisciplinary link between composition and performance (Keller et al., 2011; Prouty, 2006). Improvisation is a skill that is important for the development of the performer and also for that of the composer (McPherson, 1996). Brockmann (2009) presents an example of a pedagogical text which is built upon philosophically linking aural analysis, composition through improvisation, and performance. Brockmann (2009, p. viii) states that one of the main aims of his text is to show “how to make connections between music theory, aural skills concepts, and performance.” The O’Toole (2003, p. xi) text provides a further example of a pedagogical resource with a similar interdisciplinary focus.

While improvisation is a multi-skill discipline, Elliott (1995, p. 55) suggests another important way that performance and composition are linked. The process of understanding the way by which a composition may be best communicated demonstrates insight into both compositional and performance techniques. He states: “performing a musical work is analogous to quoting someone else’s words in order to assert something. A performer performs a musical composition in order to express his

or her personal understanding of that composition" (Elliott, 1995, p. 165). This process of interpretation requires an understanding of both performance and composition (Elliott, 1995, p. 166). Brindle (2002, p. 2) explains that "a performer should be able to compose well enough to know what is behind the notes, what must be stressed and what subdued, what should be made to sing out and what should be almost concealed, like the scaffolds behind a stage set." Thus, composition is a highly beneficial skill for the performer seeking to develop insightful performances.

Conducting

The art of conducting is an aspect of performance that also incorporates a vast array of musical skills (Labuta, 2004). Schuller (1997, p. x, xi) comments that a conductor must be an interpreter of all aspects of musicianship. The conductor must be a "musician, historian, stylist, orchestrator and listener" (Green and Gibson, 2004, p. xi). Conductors need highly developed aural and visual analytical skills, especially notational audiation (Schuller, 1997, p. 3) and score reading (Wine, 1995). The conductor must be so familiar with the score that they are able to hear the music in their mind (Green and Gibson, 2004, p. xi), and become discerning, acute listeners (Schuller, 1997; Bowen, 2003, p. 254). Conductors should therefore be guided by a discerning ability to listen (Wine, 1995, p. 6), making strong aural and visual connections.

Bowen (2003, p. 254) also suggested that a conductor needs a performer's knowledge of the piano and one string instrument, along with a general working knowledge of the performing requirements of every instrument. A conductor is not only giving a performance, but presenting a realisation of an interpretation of a composition through every musician in the ensemble. Conductors need the benefits of compositional insight for score interpretation and performance execution (Bowen, 2003; Schuller, 1997, p. viii).

As composition has been shown to benefit the performer, the aural and visual skills mentioned are also a highly integral part of performance development. The integration of these skills aids the production of fine performances and fine performers.

Chapter 3

Developing Composition Skills

The multitude of skills that are needed for a musician to develop as a performer can also be noted in the literature focusing on compositional development. Most researchers identify compositional strategies that are either aural or performance based.

Aural and Visual Analysis

From a pedagogical perspective, compositional methods are often taught alongside a collection of other disciplines including aural analysis and the study of traditional Western harmony. Jamini (2005, p. xiv) provides a workbook integrating compositional technique with an emphasis on developing in the student an understanding of traditional harmony through aural and visual analysis. Gorow (2009) also provides an example of a training method that incorporates aural and visual analysis as an approach to composition. In this pedagogical tool, Gorow (2009, p. 4) aims to "combine the principles of music theory, composition, orchestration and transcription into one coordinated system of integrated techniques." Gorow (2009, p. 5) recommends a variety of skills for development including the ability to: perceive and notate a large variety of musical styles, excel in improvisation and composition processes, communicate effectively through music notation, develop an efficient compositional sketch technique and notate musical ideas without the aid of a musical instrument. While this list encompasses a vast range of skills, there is an underlying expectation that composition students need to develop highly complex aural and visual analytical skills. To be able to notate musical ideas without the aid of an instrument is a skill which combines confident aural dictation skills with notational audiation and/or sight singing abilities. Kodály (1974, p. 191) states "it is first and foremost the composer who needs an internal ear as keen as possible" and he strongly encourages musicians to compose away from the piano, doing "everything

in your mind first” (Kodály, 1974, p. 191, 196). Cope (1997, p. 4) also emphasises broad listening, with scores, as a means of equipping and stimulating the composer’s musical imagination. Further, he encourages musicians to develop the ability to read and notate music quickly and be avid sight readers using both notational audiation and instrumental assistance (Cope, 1997, p. 8). Shoenberg (1967, p. 116) encourages the development of acute aural analysis skills to assist in self-criticism. Thus, the development of a range of aural and visual analysis skills are of vital importance for the composer.

Performance and Improvisation

There are many aspects of performance practice that can benefit the composer. One example is the fusion of performance and composition through the art of improvisation. Azzara (1993) found that the development of improvisation skills directly correlates with higher level performance skills. Historically, these benefits were particularly evident in those musicians who were both composers and performers. Brindle (2002, p. 2) comments: "performers may have to improvise. This supreme form of spontaneous composition was once the greatest proof of musicianship." During the nineteenth century if a performer was not performing their own compositions, it was a common view that the performer should somehow take on the soul of the composer to ensure the most successful performance (Hunter, 2005). Quality improvisation is an example of acutely combined performance skills with aural analysis, demonstrating a deep comprehension of compositional technique (Prouty, 2006).

In many cases the skill of sight reading is upheld as an important aspect of performance which also assists the development of the composer. Jamini (2005, p. xiv) provides a keyboard-based pedagogical tool with an emphasis on sight reading for developing compositional technique. Cope (1997, p. 8) also emphasises the benefits of this integration of skills. The Jamini (2005) text further demonstrates the importance of being able to perform on an instrument in order to adequately compose. Jamini encourages the skill of sight reading as one that is an integral part of the composition process.

Performance experience can also have a positive influence on communication through the compositional technique of score writing. The process of developing a score has many cultural aspects and is described by Elliott (1995, p. 162) as being deeply culturally contextual. The development of a score relies on expression within a particular way of thinking that is common among a specific group of people. Score development not only conveys the intention of sound, but also stipulates the actions of the performers. It is therefore necessary for the composer to have a sensitive

awareness of the role of the performer.

The process of arranging is a compositional skill which also requires this sensitivity. An arranger must know how performing, improvising, composing, conducting and listening relate within the musical contexts represented by both the original work and the arranged work (Elliott, 1995, p. 170).

Chapter 4

Implications

This discussion of the skills involved in aural and visual analysis, performance and composition has revealed the interconnected nature of these disciplines. However, while the relationships between these skills have been noted both pedagogically and professionally, they remain empirically untested. While much literature assumes relationships between all four skills, aural and visual analysis skills are most often implicitly identified as fundamental components of performance and compositional development.

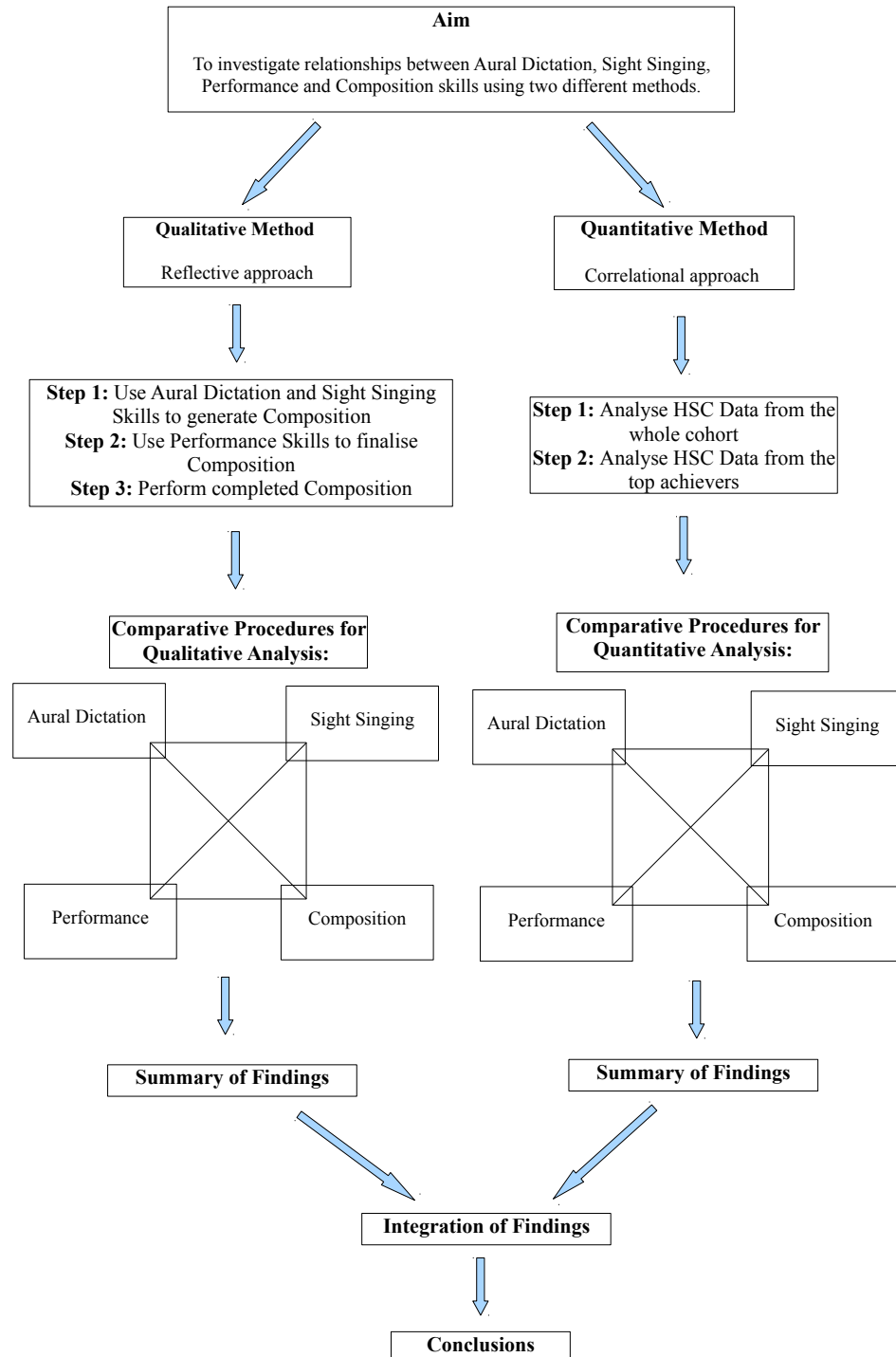
The focus of this study is primarily concerned with scrutinising the assumption that there are strong relationships between aural and visual analysis, performance and composition. While much of the literature advocates the benefits of multiple skill development, this review highlights that this is often on the basis of unstated assumptions. Therefore, this research project uses a combination of qualitative and quantitative analysis to specifically investigate relationships between these skill areas.

Part II

Research Methodology

As the aim of this study is quite broad in scope, two investigations of different methodologies were carried. The diagram shown in Figure 4.1 depicts an overview of the methodological processes used for this study. Qualitative and quantitative methods have been combined to provide a well-rounded and discipline-appropriate discussion. First, the qualitative method was carried out using the reflective research approach stimulated by the development of a suite of compositions. During the composition process the nature of the relationships between skills of aural dictation, sight singing and performance were explored and relationships were reflected upon. Second, the quantitative method was carried out using statistical data provided by the NSW Board of Studies. This data was analysed using the correlational approach for the six combinations that arise when the four skill areas of aural dictation, sight singing, composition and performance are each compared. This data was also analysed using isolated results from top achieving students. Each skill combination was compared in an effort to identify any skill as a predictor of success. The findings for both qualitative and quantitative methods are then compared through triangulation and conclusions are made.

Figure 4.1: Research Methodology Overview



Chapter 5

Qualitative Reflective Research Method

The aim of this project was to investigate relationships between aural dictation, sight singing, performance and composition skills. The first methodological approach involved participating in a reflective research project designed to explore practical aspects of the relationships between these skills. The reflective research method is an emerging approach particularly relevant to research undertaken with a practical focus in the field of music scholarship (Ackroyd and Hughes, 1992, p. 25). It was therefore a research method of particular relevance to this project.

Description of Reflective Research Methodology

Reflective research is based on exploring problems through practical methods of self-directed inquiry (Sullivan, 2010, p. 66). The benefit of reflective research is that it can lead to some unique contributions due to the practical investigation of research questions (Sullivan, 2010, p. 67). Barrett and Bolt (2009, p. 31) argues that practical experience can give special insight into the research question and the development of the methodologies. Often, the perspectives that emerge from practical experience are different from a purely theoretical approach. This method is particularly applicable for music research, because of the immensely practical nature of the field.

The mechanics of reflective research are extremely important and need to be understood for the methodology to be accepted within the context of this research project. There is a fundamental difference between reflective research and all other forms of research: emphasis is placed on research *through* practice rather than research *about* practice. The practical expression of a thought process forms the basis

for the reflective research approach. Barrett and Bolt (2009, p. 31) explains that we can not consciously seek the new, since by definition the new can not be known in advance. Therefore, reflective research is an ideal way of discovering new ideas that were unanticipated. Often, the practice generates the theory, rather than the theory influencing the practice. Through this paradigm, the creative process becomes research when constant reflection takes place throughout the creative development (Barrett and Bolt, 2009, p. 147-157).

The inclusion of an exegesis, or discussion, about the creative practice is an important part of the communication of the reflective research process and findings (Barrett and Bolt, 2009, p. 35-45). In reflective research, one can personally experience the practical applications of the research theory (Barrett and Bolt, 2009, p. 35-45). Research as practice is an approach specifically generated by the creative arts (Barrett and Bolt, 2009, p. 147-157), and therefore holds particular relevance for this research project.

Reflective Research Design

The reflective research method provided the basis for the development of a practical research design for this project. This research design involved creating and performing a suite of compositions using selected aural and visual analysis skills. These skills included aural dictation and sight singing. An important aspect to the research design was isolating these skills in the composition process. This involved using performance techniques in the later stages of the composition process. Only after the composed works reached near completion were they played through on the piano. This provided a different focus for reflection. After the works were finally completed, the researcher recorded a performance of the suite.

The functional relationships between each skill was the focus of constant reflection. These reflections focused on how the chosen skills benefit or hinder the composition process, how performance impacts compositional method, how performing one's composed work impacts the performance process and the way these skills affect the performance process. These reflections were noted and then integrated with findings from the examination data analysis and findings from the literature review.

Research Instrument Employed

The creative aspect of this research project involved the generation of a composition. A suite of short piano pieces was composed using aural dictation and sight singing

skills. The researcher used sight singing as a means of providing aural feedback during the composition process and as an alternative to using the piano. Subsequently, notational audiation was developed as a form of silent sight singing. Notational audiation or sight singing was used only once a passage was composed. Performance on the piano was not used until an entire piece was deemed completed by the researcher.

Throughout the composition process, the researcher noted any reflections in journal form. Reflections were made regarding practical evidence for the degree of relationship between the noted skills. Once the pieces were considered close to completion, the researcher then played through the pieces on the piano. Reflections were made upon the differences between the literal sound of the composition and sound ideas that were formed in the mind through notational audiation. The performance practice processes were then used to finalise the most appropriate expressive techniques, phrasing and dynamics for the piece. This was done in order to reflectively explore the role that performance had in the score refining process of composition development. The pieces were then finally performed and recorded.

Methodological Assumptions

Due to the practical nature of the reflective research approach, there were three important methodological assumptions which should be noted. First, that the skills of the researcher were at an adequate level for the reflections expressed to contribute significantly to the research premise as a whole. Second, that the isolated fashion in which the skills were practiced accurately served the purposes of the research questions. Third, that a musician who had not previously approached composition in this way, would provide beneficial reflections.

Limitations

The reflective research method has the obvious limitation of having only one research participant. Thus, this part of the study was highly subjective. However, it is this subjectivity that provides a valuable complimentary perspective in addition to the quantitative aspects of this research project.

The skill of composition is also very subjective. In particular, the processes that were used for compositional development are by nature internal and difficult to observe. The act of composing away from the instrument, along with the use of notational audiation, provide no audible or observable feedback.

Chapter 6

Quantitative Research Method

The advantages of the quantitative methodology chosen are best understood in the context of the research aims earlier stated. The quantitative method allows for the determination of numerical relationships between aural dictation, sight singing, performance and composition. The quantitative aspect to this research project was completed through two processes. First, an investigation of the correlation strength between the four skills from the whole Music 2 cohort. Second, an investigation into the results by the top achieving students between the four skill areas. The details of the quantitative method used in this project are outlined, along with the specific project design and instrumentation. This is followed by a discussion of the assumptions and implications relevant to this aspect of the study.

Description of Quantitative Research Methodology

Quantitative research involves the use of precise definitions, standardised measures, objective and replicable data collection and analysis methods (Jackson and Taylor, 2007, p. 77). Quantitative research is therefore primarily concerned with finding and articulating relationships between variables through numerical representation (Punch, 2003; Jackson and Taylor, 2007; Patten, 2002). Finding the relationships between variables may be approached experimentally or non-experimentally. Experimental research aims to show how manipulating the variables can control phenomena within a selection of the population. The research population should be chosen so that results can be generalised to the wider population (Jackson and Taylor, 2007, p. 77). Where experimental research focuses on manipulating variables in a control group, non-experimental research uses independently occurring variables. Non-experimental techniques enable the researcher to “observe the subjects in order to describe them as they naturally exist without experimental intervention” (Patten, 2002, p. 3). In non-experimental research, variables can be classified as either

independent or dependent. In the case of this study, the skill considered as a predictor for success in other skill areas is treated as the independent variable and the other skills are treated as dependent variables. Thus, a change in the independent variable should result in changes in the dependent variable (Patten, 2002, p. 11). These parameters provided the framework for quantitative analysis in this study.

Quantitative Research Design

This study was designed to investigate relationships between aural dictation, sight singing, performance and composition. The quantitative research method was particularly appropriate for analysing data obtained from the NSW Board of Studies. The data collected for this research project is secondary data (Ackroyd and Hughes, 1992, p. 32) in that it was recontextualised, through analysis, with a purpose different to that intended by the Board of Studies. This use of secondary data is an approach commonly associated with quantitative research (Grix, 2010, p. 118). Instead of using a survey as a method of data collection, questions were selected from the 2010 and 2011 Music 2 HSC examinations as secondary data, in accordance with the aims of this study.

The examination data was initially collected by the Board of Studies at examination locations around NSW. Examination scripts were sent to HSC marking centres to be marked and collated. The researcher was subsequently given access to those marks once all student identification had been removed. The results are to be stored by the researcher for twelve months after the completion of this research project. After which point all the data, whether in electronic or paper form, will be destroyed.

Once the results from these questions had been obtained correlational analysis was carried out for each of the six possible combinations of skill areas. As another means of examining possible relationships, the results for the top achieving students were also isolated and analysed.

Research Instrument Employed

The examination questions selected for this research project were prepared by the Board of Studies to fulfill the requirements outlined in the syllabus for the HSC subject Music 2 (NSW Board of Studies, 2009b). The selected questions included a five mark aural dictation exercise, a five mark sight singing exercise, a fifteen mark performance task and a fifteen mark composition task. Some understanding of the variations in the Board of Studies' approach to the Music 2 Examination over the

last decade is necessary in order to appreciate the need for at least two years of data for this study.

The five mark aural dictation question has been multi-timbral and multi-part in nature for the past ten years (NSW Board of Studies, 2011b). It has ranged from four to twelve bars in length (the 2005 examination had a four bar dictation and the 2008 examination had a twelve bar dictation). The tonalities of the dictation samples have included Baroque through to Contemporary. Eight out of the eleven past papers have focused on either twentieth century or modern excerpts. Two excerpts from the Baroque period (2004 and 2011 paper) and one excerpt from the Romantic period (2008 paper) were included. All dictations from the past ten years have had excerpts with a range of timbres including voice, string, woodwind or brass instruments. In addition, dictations have been part of an ensemble, either chamber or orchestral. The time signature/s used in past dictations were mostly common time. However in the 2003 and 2010 papers, mixed metre was used. From an inspection of Music 2 papers over the last ten years it appears that the differences between the 2010 and 2011 aural dictation questions were very distinct, perhaps more so than for any two other papers.

Though there have been slight variations in the sight singing tasks over the last decade, general trends have emerged. The past sight singing exercises have usually been in a mode, major key or minor key and tend to be in the style of folk music (NSW Board of Studies, 2009a, p.9). These exercises have not contained multi-metre time signatures and are usually eight bars in length. They also have not often exceeded one or two tones above the span of an octave (NSW Board of Studies, 2009a, p.9). For each examination year, one randomly chosen selection was used from a collection of three excerpts.

The performance requirements for the examinations have not changed over the last decade. The Music 2 syllabus specifies the presentation of a piece which had been composed within 25 years of that in which the examination was completed (NSW Board of Studies, 2009a). Students were not restricted by instrument, and could perform as a soloist or a member of an ensemble. This requirement did not vary between 2010 and 2011, providing further continuity to the data that was collected.

As with performance, the composition component of the HSC examination has not changed over the past decade. The composition was also to be representational of music composed within 25 years of that in which the examination was sat. Students were expected to submit both a written score and a recording of the composition to the Board of Studies for marking (NSW Board of Studies, 2009a, p. 7). The composition mark was generated from the written score, not the quality of the recording. Students were given the freedom to compose for any combination of

instruments and/or voices.

Thus, the research instrument for this study involved specifically chosen questions from the 2010 and 2011 Music 2 HSC examinations. This provided data for the four skill areas that make up the focus of this study.

Selection of Participants

The research participants for this study were senior high school students who completed the HSC Music 2 examination. Though the exact number of students who sit this examination varies from year to year, the numbers for 2010 and 2011 were large enough to provide statistically reliable results. In 2010 there were 749 examination candidates and in 2011 there were 729 (NSW Board of Studies, 2011a). The gender of the research participants did not play a role as a variable in this research task, because the gender of each participant was unknown to the researcher. As the participants were selected due to their enrollment in the Music 2 HSC subject, the specific selection of the individual participants was beyond the control of the researcher. This large number of available participants provided a considerable statistical advantage (Davies, 2007, p. 53) and was a motivating factor behind the use of students who sat the NSW HSC examinations.

It was also important for the researcher to identify participants who are typical of the population being studied (Davies, 2007, p. 57). HSC music students satisfy this criteria since they actively engage in many aspects of musicianship. Secondary school students provide statistically reliable data sets readily available for musical investigations such as this study. Thus, the purposive sample approach is more beneficial for this research project than a simple random sample (Davies, 2007, p. 58). This approach ensured access to a large sample of participants who were practicing musicians.

Data Analysis Processes

As previously noted, data from the Music 2 examinations was analysed using two methods: correlational analysis for each skill combination involving the whole cohort, and comparative analysis for each skill combination involving only the top achievers.

The first method involved the determination of correlation coefficients¹. When using correlation as a tool for analysis it is important to consider the nature of positive and negative correlations. For example, if a has a positive correlation with b , then

¹In this study, Pearson's r was chosen as a means of calculating linear correlation (Rodgers and Nicewander, 1988).

it would be expected that b would also have a positive correlation with a . Similarly, if a has a negative correlation with b , then it would be expected that b would also have a negative correlation with a . The strength of correlation is measured on a scale from -1 to 1 with 1 being a completely positive correlation and -1 representing anti-correlation. Both outcomes can also be represented in graphical form with a regression line. For this study, the marks from particular questions were treated as naturally occurring variables and all comparative combinations were analysed for the strength of correlation.

The second method isolated just the top achieving students in each skill area. Once the number of top achieving students in each skill area was identified, analysis was carried out to determine how many students were also top achievers in other skill areas. For example, from the students who were top achievers in aural dictation, the researcher identified how many students were also top achievers in sight singing, performance or composition. This process was carried out for each skill pair to determine whether any one skill may act as a predictor of success in other skill areas.

Methodological Assumptions

Some methodological assumptions influenced the development of this research project. First, for the purposes of this study it was assumed that different musical skills are in some way related. It is this assumption that is the focus of scrutiny for this research project. While this assumption was grounded in the findings presented in the literature review, it has provided the basis for the quantitative correlational analysis.

The second assumption was that students under exam conditions could provide data that is relevant to skills which are not necessarily confined to exam conditions.

Third, the researcher assumed that students had prepared with similar diligence for all parts of the Music 2 Examination. While it is likely that students prepared for different sections of the examination with varying degrees of dedication, it is assumed that the large number of participants would average out any anomalies.

Assumed Limitations

There are some limitations in this study due to the nature of the sample data, instrumentation and the quantitative methodology. Conclusions drawn from the data are limited because of the breadth of population for the study. From the perspective of music education research, this study includes only students in NSW.

While this study does not seek to focus on educational or curriculum issues, a study involving students from a larger sample of Australian states and curriculum could contribute further to similar research aims. While the results should be applicable to other music students and musicians the data is limited to NSW HSC students. Further study in this field could be conducted using other student groups, especially those in a tertiary setting.

Also, the sample of students cannot be considered random. Students are either self-selected or recommended to this subject due to obvious musical ability. As a result of these considerations, one limitation that can be expected is distortion to the data sample.

There were further limitations with the sight singing data. This was due to the random approach used by examiners in choosing which sight singing sample to give each student. The researcher was therefore unable to obtain information based on how students achieved for the three specific options for sight singing in each year.

Limitations also arise when using statistical analysis for human skills: human beings are not like the objects of physical science and therefore cannot be quantified (Ackroyd and Hughes, 1992, p. 29). As quantitative research is largely unable to recognise the effects of conditions or human behaviors (Jackson and Taylor, 2007, p. 77), one cannot fully measure the nature of the relationship between variables based purely on numerical significance. It is therefore important to draw conclusions within the broad context of music scholarship.

Integrating Reflective and Quantitative Research Methods

As shown, this project employed two distinct methodologies. Though these methodologies were pursued separately, integrated conclusions were drawn through triangulation. The reflective research method was used to explore relationships between aural dictation, sight singing, composition and performance skills on a practical level. The quantitative method was used to perform correlational analysis of each possible skill combination. The quantitative method was also used to compare results of top achieving students in these areas. This approach was in keeping with the jointly practical and theoretical nature of musicianship in general (Elliott, 1995, p. 49).

Part III

Results and Discussion

The discussion of the collected data is divided into two sections. These deal separately with the results from both methods. First, the findings from the reflective research method are discussed within the context of the focus skills for this study. Second, the findings from the quantitative research are discussed from the correlational analysis and the analysis of top achievers. Finally, comparisons are drawn between the various findings of each method.

Chapter 7

Qualitative Reflective Research

As the findings in the literature review indicated, varying degrees of relationship have been noted between the focus skills of aural dictation, sight singing, performance and composition. The interplay of these skills was the subject of reflection throughout the creative process involving the development and completion of the piano suite “The Bookshelf” found in Appendix E. The compositional framework is explained, along with some details of the compositional process. The findings from the reflective analysis are then provided, with attention given to all combinations of focus skills.

Compositional Framework

To provide a context for the reflections that arose from the development of the composition, it is important to disclose the compositional framework that was devised. This compositional framework involved particular restrictions in the areas of instrumentation, form and tonality.

Instrumentation

A number of factors resulted in the decision to compose for solo piano. Firstly, the piano is an instrument on which the researcher enjoyed some facility. Secondly, the piano is neutral in the context of the aural and visual analytical skills which were employed during the composition process. The composition could not be created for voice, for example, because of the emphasis on sight singing as a method of feedback.

Form

The chosen form for this composition was that of a suite including four to six short pieces. Initially, the researcher wrote a list of contrasting and commonly experienced emotions. These emotions were frustration, fear, awe and isolation. The researcher dwelt on each emotion in turn and composed two to three motifs that were thought to capture the essence of each specific mood. The variety of emotions enabled these motifs to be composed in a fragmented fashion, allowing for inspiration, reflection and adjustment. These motifs then became the basis for each piece in the suite. They were manipulated using a variety of compositional techniques such as sequencing, counterpoint, augmentation, variation, diminution, transposition, fragmentation, partial omission and repetition.

Though the pieces evoked the previously identified emotions, the suite lacked a sense of overall cohesion. While listening to a radio interview with a leading Australian composer, the researcher heard it suggested that modern composers often use extra-musical ideas to give form and structure to a piece. This composer suggested that modern audiences do not attend a concert expecting to hear a certain form. For example, in the Classical period Sonata form would have often been expected. Rather, modern audiences often anticipate unpredictable forms. It is therefore considered important that audiences be guided through the form of the piece. In many cases this is achieved through poetry or literature to give structure to a work. This idea was inspirational to this project. It strongly influenced the development of the title of the resulting work, “The Bookshelf”. It also suggested the type of literary quotations to be associated with the pieces. After the four pieces had been essentially completed, the researcher began considering a variety of personally significant books. Although quotes were selected from stories representing a variety of genres and writing styles, they were primarily chosen to elaborate on the emotions that had been previously selected.

Tonality

This suite of piano pieces was not restricted to any particular tonal direction. Rather, each piece was developed with a different sense of tonality, depending on the emotional focus. Though the emotions were the starting point for tonal exploration, the quotations were chosen to enhance emotive communication.

Piece “One” was composed with the emotion of frustration as a guide for tonal development. This piece employed the strong, dramatic chromaticism found in late romantic works such as those by Rachmaninoff. The quote for this piece was taken from *Alice’s Adventures in Wonderland* by Lewis Carroll: “Maybe it’s always pepper

that makes people hot-tempered... and vinegar that makes them sour.”

Piece “Two” was composed with the emotion of fear as a guide for tonal development. This piece conveys some atonal influences by composers such as Debussy, Schoenberg and Webern. The quote for this piece was taken from the poem *In The Dark* out of the collection *Now We Are Six* by A. A. Milne: “So - here I am in the dark alone / there’s nobody here to see.”

Piece “Three” was composed with the emotion of awe as a guide for tonal development. This piece included chorale-like influences along with romantic tonalities which are often evoked by compositions for film. The quote was taken from *The Young King*, a short story by Oscar Wilde: “Never before had he felt so keenly, or with such exquisite joy, the magic and the mystery of beautiful things.”

Piece “Four” was composed with the emotion of isolation as a guide for tonal development. This piece contains influences of minimalism such as that which is used in the works of Australian composer Nigel Sabin. The quote for this piece was taken from *Great Expectations* by Charles Dickens: “I found that the spot I wanted was not where I had supposed it to be, and was anything but easy to find.”

While a variety of styles were used in this suite, it was thought important to have a sense of cohesion throughout the work. This was brought about by adding two short pieces: as a prelude, the “Left Bookend” and as a postlude, the “Right Bookend”. These bookends were composed with the specific purpose of adding structure and unity to the suite. This was achieved by incorporating melodic fragments from each piece into a short, tonal composition. This composition was used for both bookends with some variation in tonality and pitch material. The “Left Bookend” is modal and the final “Right Bookend” is in a major tonality. As a whole, this suite celebrates the diversity of tonalities that are characteristic of contemporary art music.

Compositional Process

As shown previously in Figure 4.1, three main steps formed the basis for the compositional process in this study. These steps were chosen to provide opportunity for reflection on each skill independently and the relationships noted with the other focus skills. The three steps are outlined along with details regarding their completion.

Step 1. The Use of Aural Dictation and Sight Singing Skills to Generate Composition.

Aural dictation and sight singing skills were used conjunctively as the method of generating compositional material. This began with the development of motivic fragments that were then developed into melodic and harmonic excerpts. These skills were constantly employed throughout the structural development of each of the smaller works of the suite. Finally, a first draft of each piece was generated using aural dictation and sight singing skills as compositional devices.

Step 2: The Use of Performance Skills to Finalise Composition.

Once the first draft of each piece was completed using aural dictation and sight singing, performance skills were used to further develop the composition. This ensured that each piece could be technically executed. Performance skills were also used to confirm that the registers chosen for the work, communicated the musical idea with the timbre imagined during step one. Performance was vital for the selection of appropriate dynamic and expressive markings. The use of performance skills was an imperative part of the realisation of the composition in its final form.

Step 3: Performance of the Completed Composition.

Once the composition was finalised, the researcher began practicing the pieces in preparation for the final recording. This process involved further technical alterations once the pieces were performed at the intended speed. A sense of closure was brought to the process when the composition was finally recorded by the researcher.

Reflective Analysis

Throughout this compositional process, the relationships between the four focus skills were the subject of reflection. These reflections are discussed for each of the six possible combinations. The strength of relationship for each pair is evaluated as either primary, partial or subtle. Primary indicates that the two skills are very strongly linked with evidence that the development of one skill strongly aids the development of the second skill. Partial indicates that the two skills are linked with some evidence that the development of one skill aids the development of the second skill. Subtle indicates that the two skills may be linked but that there was little or no evidence that the development of one skill aids the development of the second skill.

1. Aural Dictation and Sight Singing

The reflective research method found a strong relationship between aural dictation and sight singing. Aural dictation and sight singing were two skills chosen for generating compositional material. Instead of using improvisation, these skills were chosen as a means of composing away from the piano. The skill of aural dictation was used in two ways: to notate material which was composed through singing and to notate material composed in the imagination and not sung. The skill of sight singing was used to later confirm the sound of the notated material. These skills were chosen to provide greater freedom in developing compositional material. Past experiences of the researcher also influenced the decision to compose away from the piano, as the use of improvisation had been found to result in limited works both technically and stylistically.

The researcher noticed that the integrated use of these skills resulted in their mutual development. The development of aural dictation skills grew through the creation of melodic material in particular. When early melodic material was generated, it was often sung while being notated. This resulted in a noticeable improvement in aural dictation and sight singing skills. As the ability to imagine the sound grew, sight singing was used less for aural feedback, with notational audiation used instead. In this case, notational audiation was a silent manifestation of the skill of sight singing. As the project continued, both skills were executed with increased confidence. Therefore, as noted in this reflective method, the relationship between aural dictation and sight singing is considered primary.

2. Aural Dictation and Performance

The reflective research method found that some relationship may exist between aural dictation and performance. Though these two skills were intentionally practiced separately (aural dictation for step one of the project and performance for step two and three), there was a subtle relationship. The process of practicing complex aural dictation skills contributed to the development of listening skills. These then aided the process of performance acquisition and execution by an internalised knowledge of the sound of the piece. Thus, the researcher noticed some assistance in the performance execution of melodic ideas through phrasing. This was observed when preparing the performances for the “Left Bookend”, “Three” and “Right Bookend”, which demonstrate a distinctly melodic focus.

However, due to the multi-faceted nature of performance acquisition, it is noted that while aural dictation skills may have contributed to performance development, there were many other skills involved which were not the focus of this study. Therefore,

as noted in this reflective method, the relationship between aural dictation and performance is considered subtle.

3. Aural Dictation and Composition

The reflective research method found a strong relationship between aural dictation and composition. Aural dictation was used as a method for generating compositional material. Consequently, some adjustment of compositional approach was required. While the researcher may have been accustomed to generating material through improvisation, aural dictation was chosen as a means of developing material through imagination. One reason for this was to provide greater freedom in developing compositional material. The process used in this research project resulted in the development of musical imagination to realise the flow and sound of the piece away from the instrument.

As the researcher developed more complex aural dictation skills there was increased confidence in compositional output. This can be observed in the score for piece “One” which was one of the last pieces to be completed. This piece exhibits more exploratory tonalities and textures, which was a direct result of more confident aural dictation skills. Therefore, as noted in this reflective method, the relationship between aural dictation and composition is considered primary.

4. Sight Singing and Performance

The reflective research method found that some relationship may exist between sight singing and performance. Though these two skills were intentionally practiced separately (sight singing for the first part of the project and performance for the second), there was a subtle relationship. The process of practicing sight singing skills aided the acquisition of performance skills. In particular, the researcher noticed some assistance in the performance execution of melodic ideas through phrasing. This was found in preparation for piece “Four” which has an emphasis on dialogue between sound and silence. This piece is performed most poignantly with a vocally-influenced approach to melodic phrasing.

However, while sight singing skills may have contributed to performance development, there were many other skills involved which were not within the focus of this study. Therefore, as noted in this reflective method, the relationship between sight singing and performance is considered subtle.

5. Sight Singing and Composition

The reflective research method found a strong relationship between sight singing and composition. Sight singing was used as a method for checking and correcting compositional material. While the researcher may have been accustomed to checking the progress of a composition periodically by playing it on the piano, the design of this project required the researcher to engage in sight singing for feedback. One reason for this was to test the effectiveness of sight singing as a compositional skill. The researcher noted sight singing as a particularly useful compositional device for piece “Three” with its chorale-like nature.

Though the researcher was somewhat limited in personal vocal range for checking compositional progress, this did not negatively affect the implementation of a large pitch range for the piano works. This can be noted particularly in piece “Four”. A limited vocal range was therefore still useful in gauging the general sound of most of the composed material. However, due to the timbre of different registers on the piano there were some small samples of composed material that required adjustment after the work was played. Piece “Two” resulted in the most register changes, due to the number of exposed phrases. In piece “Four” some left-hand melodic lines were raised to a higher register in order to allow for more authentic emotional execution. While there may have been some early difficulties realising texturally dense pitch combinations through audiation, this became less noticable as the composition process continued. However, rhythmic comprehension was never a problem throughout the composition process. Though these works are not rhythmically exploratory, this was the result of a melodic emphasis rather than an inability to audiate rhythms.

Throughout the process, sight singing skills were found to have a direct impact on the development of compositional skills. As the researcher developed more confident sight singing skills there was correspondingly increased confidence in compositional output. Therefore, as noted in this reflective method, the relationship between sight singing and composition is considered primary.

6. Performance and Composition

The reflective research method revealed some relationship between performance and composition. Performance was used as a method for checking and correcting compositional material.

Performance was also used as a method for finalising performance directions such as fingering, dynamics and articulation. Specifically, the fingering choice was of particular importance when performing piece “One”. The fingerings noted on the score were the result of considerable experimentation on the piano. Dynamic and artic-

ulation markings were often adjusted as the pieces became more familiar through performance. During performance practice, passages were studied for their sense of flow and direction. This was an important process for finalising the most successful expressive markings. There were also some instances where softer dynamics were originally specified than were practically realistic. Therefore, though performance was only employed in the latter part of the compositional process, it had a direct and important influence on the final result. It was extremely beneficial for the composer to be able to play the pieces in order to accurately assess the effectiveness of the compositional process adopted.

In contrast, when the compositions were completed, some difficulties arose during the preparation for the final recorded performance. One of the difficulties noted was the conscious effort required to strictly adhere to the score. When performing from a self-composed score it is easy to constantly re-evaluate and adjust musical decisions previously made. It is easy to approach the score with less reverence than a score by another composer. This often affected the attention to score details and the quality of the practice experience. Therefore, the final performance of the works was somewhat hindered by the imposed interactions between performance and composition for this project.

However, while there were some difficulties noted in the performance preparation of this particular work, the researcher noted benefits in subsequent performances of other works. After performing a self-composed work, the researcher noted an increased sensitivity to performance directions on scores by other composers. The researcher also noticed an increased awareness of context. As the composition for this project was a suite of smaller works, the researcher was more aware of the intention behind piece placement for the flow of melodic ideas and mood. This positively influenced preparation for performances of works by other composers which involve a suite or multiple movements.

The relationship between performance and composition was found to be very complex. There were some unanticipated difficulties, but also many unanticipated benefits when practicing both skills together. Therefore, as noted in this reflective method, the relationship between performance and composition, is considered partial.

Summary of Findings from the Reflective Research Method

The reflective research method highlighted some variation in the strength of relationships between the focus skills for this study (see Table 7.1). Aural dictation and sight singing were skills found to be particularly beneficial for, and easily integrated with, the composition process. Further, some relationship was also found between composition and performance. More noticable benefits were found when using performance skills to aid the composition process than when attempting to use composition skills in performance. Though relationships between performance and aural dictation and also performance and sight singing were not a strong focus due to the methodology employed, some subtle links were still apparent in this study.

Table 7.1: Strength of Skill Relationship Found with Reflective Analysis

Skill	Primary	Partial	Subtle
Aural Dictation and Sight Singing	X		
Aural Dictation and Performance			X
Aural Dictation and Composition	X		
Sight Singing and Performance			X
Sight Singing and Composition	X		
Performance and Composition		X	

Chapter 8

Quantitative Research

Numerical data was collected from four parts of the Board of Studies Music 2 2010 and 2011 examinations. These represent the four focus skills: aural dictation, sight singing, performance and composition. The raw examination results for these areas are presented in histogram form. All 2010 histograms show the marking spread for the 749 Music 2 students. Likewise, the 2011 histograms show the marking spread for the 729 Music 2 students. The particular requirements for each relevant part of these examinations are analysed in light of the distributions. Correlation plots are then presented and discussed for each of the six possible combinations. Finally, the results for the top achievers in each skill area are also analysed and discussed.

Aural Dictation

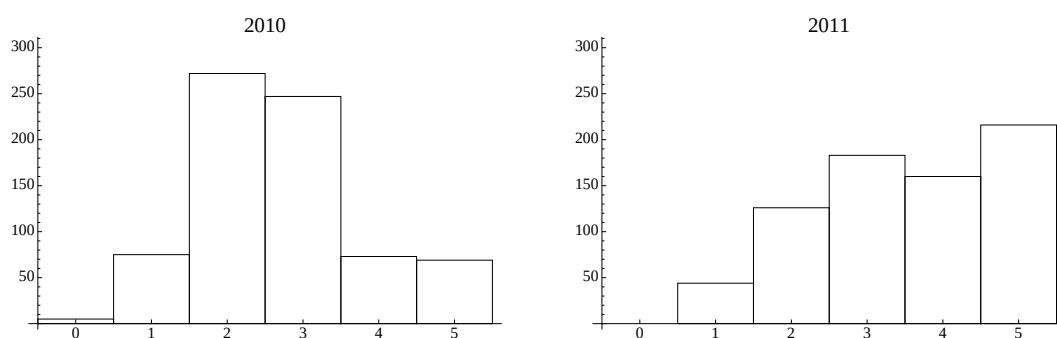
The aural dictation question in the 2010 and 2011 HSC examinations was marked out of five without the use of half marks (see Figure 8.1). The aural dictation documents can be viewed in Appendix A and B.

The 2010 aural dictation question was multi-part and multi-timbral in nature. It consisted of an eight bar excerpt from the “Petrouchka” Ballet Suite by Stravinsky. Students were required to complete the clarinet part which was heard amongst a four-part texture with two contrasting rhythmic motifs. This dictation had the added difficulty of being for the Bb clarinet, which is a transposing instrument. The excerpt was in 3/4 timing except for one bar in 4/4, which required the student to aurally recognise multi-metred music. Two prompts were given, one at the opening of the excerpt and another in bar four. The second prompt was strategically placed due to the ledger lines that comprised part of the excerpt. This use of ledger lines increased the difficulty for students when notating the dictation. The most common mark awarded to students for this task was two or three out of five, demonstrating a relatively high degree of difficulty. Five students received a mark of zero, further

indicating the difficult nature of the task. The 2010 histogram does display the broad features of a normal distribution.

The 2011 aural dictation question contained considerably fewer challenges for students. It consisted of the opening nine bars of the Fugue in A major (from the Prelude and Fugue BWV 536) for Organ by J. S. Bach. This excerpt was monophonic with no other complex rhythmic material within which to hear the dictation melody. Prompts were given at the opening and closing of the excerpt, which was in the bass clef. The most common mark awarded to students was five out of five, demonstrating a significantly lower degree of difficulty. Unlike the 2010 Examination, no students received a mark of zero, which further indicates that the task was of a lower degree of difficulty. The 2011 histogram was quite skewed and does not display a normal distribution.

Figure 8.1: Histograms of Aural Dictation Results



Sight Singing

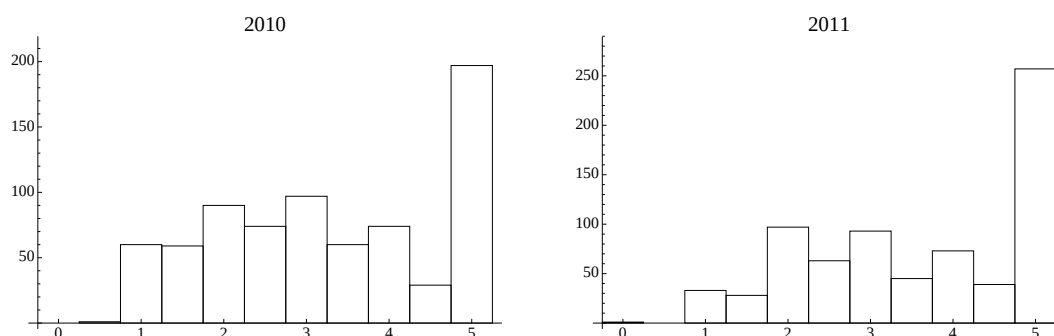
The sight singing component of the 2010 and 2011 HSC examinations was marked out of five (see Figure 8.2). For this question half marks were awarded, although not with the same regularity as full marks. These documents can be viewed in Appendix C and D.

The three 2010 sight singing examples ranged in key. The first passage was in E minor with a modal segment in bar 4, the second passage in D major and the third passage also in E minor. All passages spanned a range of a little over an octave in an attempt to make the passages technically accessible to most students. The first two passages were in 4/4 time and passage three was in 6/8. The rhythmic complexity of all of the passages was fairly limited, with only the second passage containing semiquaver movement. The passages demonstrated an intention to emphasise melodic and intervallic interpretation by the student, rather than rhythmic complexity.

The 2011 sight singing examples also ranged in key but this time included two examples in major tonalities. The first passage was in D major, the second in E minor and the third in Bb major. Once again, the passages spanned a little over an octave and were therefore fairly accessible in range. The same two time signatures were also used for 2011: the first passage was in 4/4 timing and the other two passages were in 6/8. The rhythmic complexity in the 2011 excerpts could be considered to be of a slightly lower level of difficulty than for the 2010 excerpts. Overall, however, the 2010 and 2011 sight singing excerpts were of a similar standard of difficulty which simplifies comparisons between the two data sets.

For both years the most common student result was five out of five, demonstrating a relatively low degree of difficulty and highlighting a possible limitation in the assessment instrument. Both histograms display similar non-normal distributions which indicates that the potential of the large number of students who received full marks still remains untested.

Figure 8.2: Histograms of Sight Singing Results



Performance

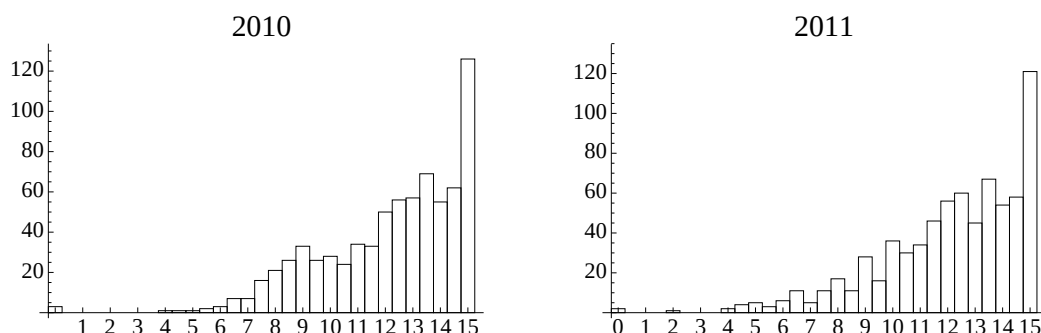
The performance component of the 2010 and 2011 HSC examinations was marked out of fifteen (see Figure 8.3). As with the sight singing results, half marks were awarded, although without the same regularity as the whole marks.

The criteria outlined for performance by the Board of Studies involved students giving a live performance (NSW Board of Studies, 2009a). The only limitation for repertoire required the selection of a piece of music composed within 25 years of that in which the examination was completed. This performance could have been presented by memory or with music, depending on the choice of the performer. Students were also not restricted by instrument, and could perform as a soloist or a member of an ensemble.

The majority of marks were awarded in the upper marking region between scores of twelve and fifteen inclusive. For 2010, 64% of students achieved in this range,

and for 2011, 63% of students achieved in this range. Fifteen was the most common mark awarded for both years. It is most likely that a large majority of students sitting the Music 2 examination would be receiving private tuition in performance, therefore raising the standard of this component. Both histograms display similar non-normal distributions which indicates that the potential of the large number of students who received full marks still remains untested.

Figure 8.3: Histograms of Performance Results



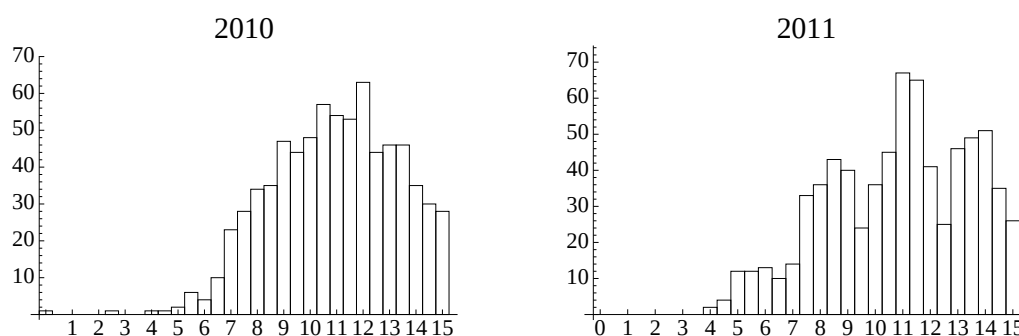
Composition

The composition component of the 2010 and 2011 HSC examinations was marked out of fifteen (see Figure 8.4). For composition, half marks were awarded with similar regularity to whole marks.

The criteria outlined for composition by the Board of Studies involved students submitting both a score and recording of a composition (NSW Board of Studies, 2009a). These compositions were to reflect musical styles within 25 years of that in which the examination was completed. Students were therefore encouraged to develop their own individual compositional style. Students could approach the task of composing in a variety of ways, and no restrictions were placed on instrumentation, manipulation of musical elements or score conventions.

The majority of marks for the two years were awarded between ten and fifteen. For 2010, 68% of students received a mark in this top region, and for 2011, 67% achieved in this region. However, both histograms do display the broad features of a normal distribution, indicating that students may have found the composition task slightly more difficult.

Figure 8.4: Histograms of Composition Results



General Trends and Findings

Observations emerging from the histograms must be considered within the context of Australian educational practice and the nature of the student sample. The skewed nature of the histograms is partially a result of outcomes-based referencing (Berlach, 2004; Dunn et al., 2002). This approach encourages markers to award the full range of marks and is therefore likely to skew results towards the higher end of the marking range. While a discussion on educational marking practice is beyond the scope of this study, the statistical strength of the data must be considered within this educational context.

The nature of the student sample is another factor which most likely contributed to the skewed data. Many students bring skills to the HSC Music 2 course that have been fostered for many years prior. These data results are a demonstration not only of skills learnt during the HSC year, but also of student ability fostered and developed beyond the classroom. It is therefore not surprising that non-normal distributions result in many skill areas with a large number of students achieving in the upper regions of the marking range. Therefore, the significance of any skills which have resulted in a normal distribution is emphasised.

Performance and sight singing are both areas in which Music 2 students seem to easily excel, hence the non-normal distributions mentioned above. While most skill areas demonstrate non-normal distributions, there are some areas which have resulted in normal distributions. While in composition many students do achieve high marks, the distribution indicates that students generally find the task slightly more difficult. It could also be speculated that students have received less extra-curricular tuition in composition.

Aural dictation shows the most dramatic differences between both years. Students clearly found the multi-part aural dictation in 2010 more challenging than the single-part aural dictation of 2011. It may be possible that the somewhat easier task in 2011 may have resulted from less positive feedback from the difficult tasks set in

previous years.

Correlational Analysis of the Cohort

For four skill areas, there are six possible pairs for correlational analysis. These pairs are presented in turn for both the 2010 and 2011 results. For each pair of skills, the correlation coefficient r is numerically stated on the following graphs.

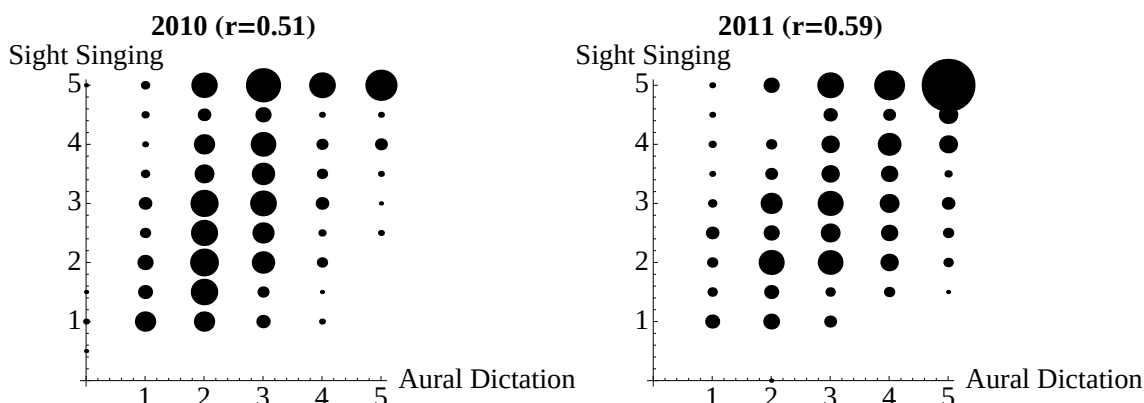
The graphs used for the display of this data show the number of students who achieved a specific combination of marks for the two skills. This is indicated by the size of the dot. For example, a large dot implies a large proportion of students who achieved that coordinate of mark combinations for the two skills. A small dot indicates a small proportion of students. This representation shows clearly the groupings and trends for the compared skills.

1. Aural Dictation and Sight Singing Skills.

For 2010 the correlation was 0.51 and for 2011 the correlation was 0.59, as shown in Figure 8.5. Of the six pairs of skills investigated these were the highest correlation values obtained. This positive correlation between sight singing and aural dictation is supported by the findings in the literature review¹. However, while aural dictation and sight singing produced the highest correlation values, they are only marginally above 0.5 and therefore somewhat statistically important. The most likely reason that the correlations are not higher is the differences in musical style and texture for both tasks, as previously noted. The major factor for the change in correlation is the varying level of difficulty for both aural dictation tasks. Therefore, there is a noticeable difference between the correlations for each year.

¹Gordon (2004, p. 10), Tacka and Houlahan (1995, p. 4), Sisley (2008), Telesco (1991, p. 179-190), (Kodály, 1974, p. 187), Damschroder (1995) and Cleland and Dobrea-Grindahl (2010) indicate strong links between aural dictation and sight singing.

Figure 8.5: A Scatter Plot of Aural Dictation Results Plotted Against Sight Singing. The size of each dot is proportional to the number of students achieving those scores.



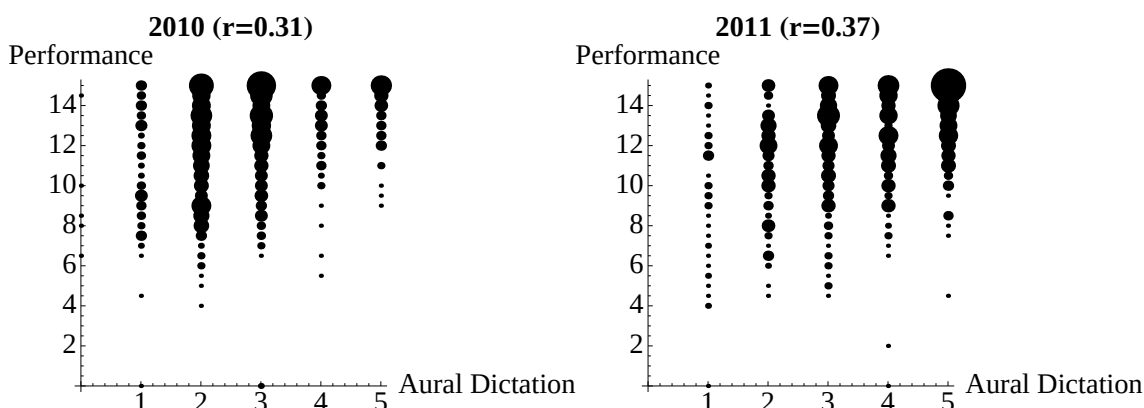
2. Aural Dictation and Performance Skills.

For 2010 the correlation was 0.31 and for 2011 the performance and aural dictation correlation was 0.37, as shown in Figure 8.6. With no change in requirements for the performance component, the role that aural dictation played in varying the results across both years is emphasised.

The correlations for aural dictation and performance are not as statistically strong. One factor for the lower correlation is the possible differences in the examination pressures for the two skills. The performance task required students to perform live in front of an examiner. While students are still under examination pressure when completing the aural dictation, they are not required to produce sound. Also, with the opportunity for multiple hearings in the aural dictation, students may not respond as consistently to the examination pressure for the dictation as they would the performance task.

The nature of the preparation requirements for both tasks is also quite different. It is likely that students preparing for the aural dictation would be practicing with less intensity than for performance. Performance preparation would most likely include regular, repetitive, mechanical and technical practice on their chosen instrument. This would most likely be due to the much greater weighting given to performance (15 compared to 5). Another difference in preparation requirements involves expectation. For the aural dictation, students would be practicing with the expectation that they will encounter an unfamiliar excerpt of music. However with performance preparation, the student becomes very familiar with the same piece of music. Therefore, the different ways in which students prepare for both skills may have contributed to a lower correlation.

Figure 8.6: A Scatter Plot of Aural Dictation Results Plotted Against Performance. The size of each dot is proportional to the number of students achieving those scores.

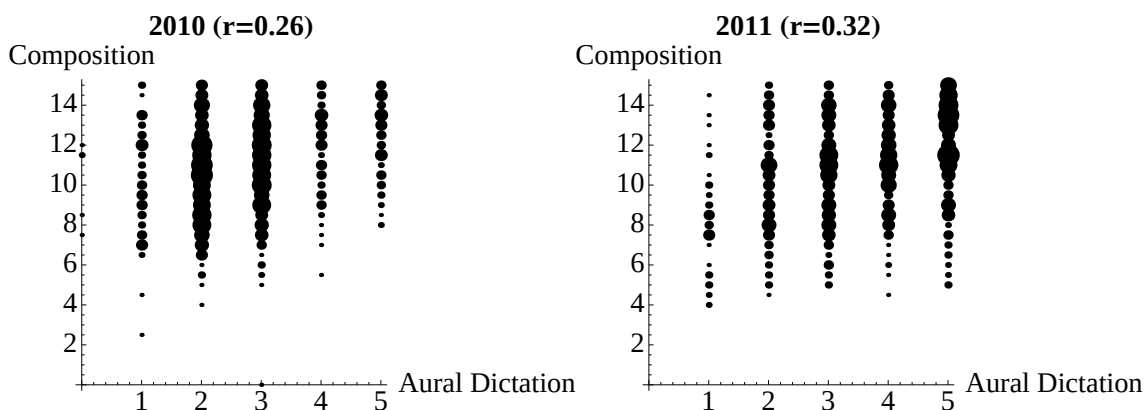


3. Aural Dictation and Composition Skills.

The strength of correlation between aural dictation and composition produced the lowest results out of all the combinations tested in this study. For 2010 the correlation was 0.26 and for 2011 the correlation was 0.32, as shown in Figure 8.7. These correlations are well below 0.5 and therefore considered not very statistically strong. One factor for this low correlation may be the particular methods that students use to compose. While some students may use compositional methods that involve aural dictation skills, it is more likely that the majority of students would use a performance-based compositional approach.

As with all other comparisons so far, the 2010 results have shown a lower correlation than the 2011 results. This consistency further emphasises the influence of the more difficult aural dictation for the 2010 exam.

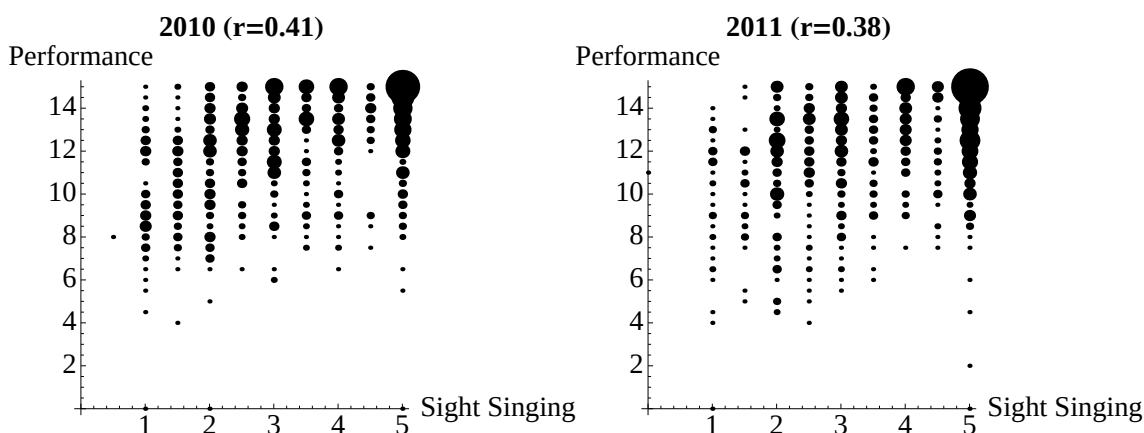
Figure 8.7: A Scatter Plot of Aural Dictation Results Plotted Against Composition. The size of each dot is proportional to the number of students achieving those scores.



4. Sight Singing and Performance

For 2010 the strength of correlation was 0.41 and for 2011 it was 0.38 as shown in Figure 8.8. The small margin of difference between these two correlations attests to the consistency of the tasks between the two years. Although consistent, these correlation results are still statistically low. The low correlation may be a result of the comparative requirements: where sight singing requires a performance environment with unseen material, performance requires previously prepared material. These differences may have contributed to the different student outcomes and therefore the strength of correlation. The multifaceted nature of performance (Parcutt and Macpherson, 2002) could be another factor contributing to the statistically low correlation.

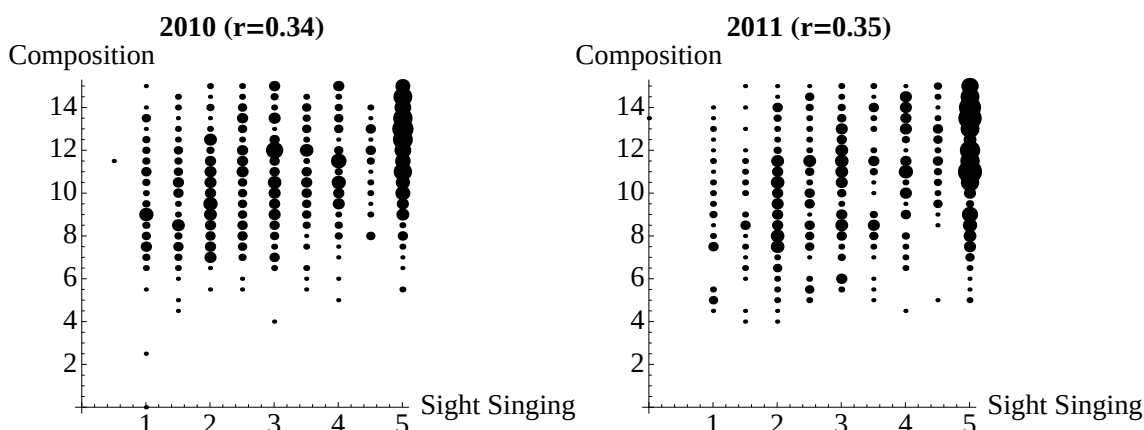
Figure 8.8: A Scatter Plot of Sight Singing Results Plotted Against Performance. The size of each dot is proportional to the number of students achieving those scores.



5. Sight Singing and Composition

The correlation strength for 2010 was 0.34 and for 2011 was 0.35, as shown in Figure 8.9. Out of all the correlation combinations, sight singing and composition demonstrate the most consistency across years. However, the low correlation results for this combination are not of much statistical importance.

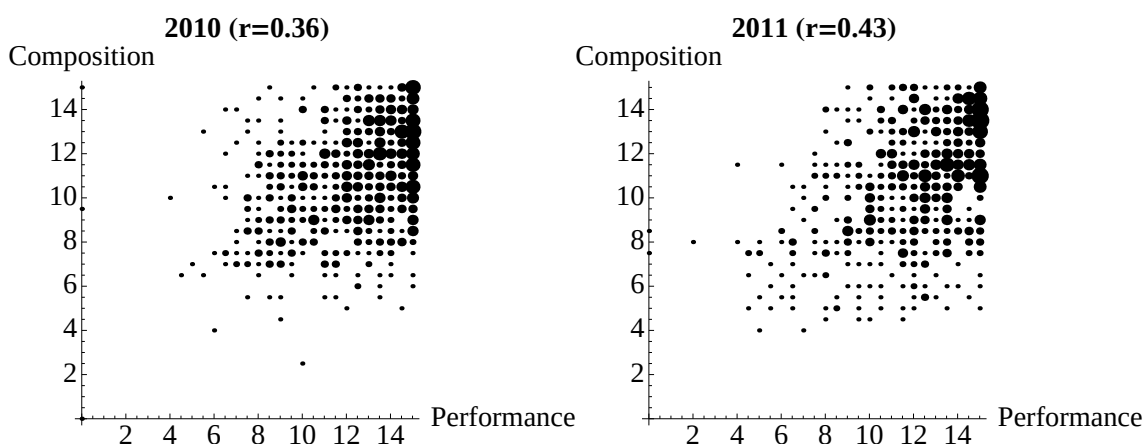
Figure 8.9: A Scatter Plot of Sight Singing Results Plotted Against Composition. The size of each dot is proportional to the number of students achieving those scores.



6. Performance and Composition

The correlation strength for 2010 was 0.36 and for 2011 was 0.43, as shown in Figure 8.10. For all the correlations involving composition, it is performance and composition which appear to be most strongly related. This data indicates that most Music 2 students are consistently more competent as performers than they are as composers. As a result, it is likely that students would use their performance skills as an integral part of the composition process, thus resulting in a somewhat higher correlation than between composition and aural dictation or composition and sight singing.

Figure 8.10: A Scatter Plot of Performance Results Plotted Against Composition. The size of each dot is proportional to the number of students achieving those scores.



General Trends and Findings

There are some significant trends that emerge from the correlation values. For each combination of skills there was a reasonable degree of consistency between years, as depicted in Table 8.1.

Table 8.1: Correlation Differences for Each Skill Combination

Skill Area	2010 Correlation	2011 Correlation	Difference between 2010 and 2011
Aural Dictation and Sight Singing	0.51	0.59	0.08
Aural Dictation and Performance	0.31	0.37	0.06
Aural Dictation and Composition	0.26	0.32	0.06
Sight Singing and Performance	0.41	0.38	0.03
Sight Singing and Composition	0.34	0.35	0.01
Performance and Composition	0.36	0.43	0.07

The difference between 2010 and 2011 for any combination was never greater than 0.08. Table 8.1 also shows that for each skill combination, except sight singing and performance, the correlation was always higher in 2011. This trend is most likely a result of the skewed 2011 data, as shown in the histograms (see Figures 8.1, 8.2, 8.3 and 8.4), where a large proportion of students achieved high marks. Overall, there is strength in the consistency of the results. Further, there is strength in the correlation results because of the large sample sizes for both 2010 and 2011.

The findings that arise from an analysis of the correlations present two different perspectives. First, the correlations can be viewed from a purely statistical perspective. Though the correlation values are consistent, and are the result of a large data sample, they could still be considered statistically low (as the highest correlation is 0.59). This perspective could indicate that the relationships asserted in the literature review may not be supported statistically by this study. This perspective could also indicate that the skewed marking distributions have masked the correlations. Finally, this perspective could suggest that correlational analysis may not be the best method for measuring the strength of relationship between musical skills.

Second, the correlations can be viewed from an educational perspective. The correlations may convey some important findings within the context of the student sample, as earlier mentioned. This perspective could indicate that particular notice

should be given to the ordering of the correlation values. Aural dictation and sight singing resulted in the highest correlations, and the next highest correlation was found with performance and composition.

Therefore, while the data may appear statistically low, this particular educational context suggests that the findings should still be considered sufficiently robust to be of interest.

Comparative Analysis of Top Achievers

In order to devise an alternative tool for analysing the HSC data, an attempt was made to isolate the top achievers in each skill area. The selected data was then used to consider how many students scored in comparative areas and to then identify the possibility of success in any one skill acting as a predictor of success in others.

Methods for Isolating Top Achievers

There were a number of possible methods available for isolating top achievers in each skill. The first method involved using Z scores to isolate students who were at least one standard deviation above the mean. This is a common method used by educators to accurately identify top achieving students across a range of tasks. This method ensures that top achievers are identified regardless of the level of difficulty of the task. However, this aspect makes the method inappropriate for this part of the study.

Another possible method involved selecting students who achieved above a specified percentage for each task. For example, if a mark of 80% were chosen, all students who achieved 80% and above would be considered top achievers. However, limitations with this method arise as a result of the different marking ranges for each skill area and the different uses made of those ranges. While 80% identified a useful selection of students as top achievers for performance and composition, it resulted in too many students being chosen from aural dictation and sight singing (see Figures 8.1, 8.2, 8.3 and 8.4).

The final method followed the principles of the second, while making some concession to the first. This method involved choosing separate marking ranges for each skill, based on the distribution shown in the histograms (see Figures 8.1, 8.2, 8.3 and 8.4). The marking ranges chosen to identify top achievers in each skill area are displayed in Table 8.2. For aural dictation and sight singing skills, only students who received five out of five were chosen as top achievers. This was due to the small number of possible marks and the large number of students who achieved full marks in both skill areas. For performance skills, students who received fourteen or fifteen were considered top achievers. For composition skills, students who received thirteen, fourteen or fifteen were considered top achievers. The difference between performance and composition was necessary because of the different distributions shown in Figures 8.3 and 8.4. The achievement levels were chosen to be as close to 80% as possible.

Table 8.2: Marking Ranges Chosen to Isolate Top Achievers

Skill Area	Total Possible Marks	Marking Range for Top Achievers
Aural Dictation	5	5
Sight Singing	5	5
Performance	15	14-15
Composition	15	13-15

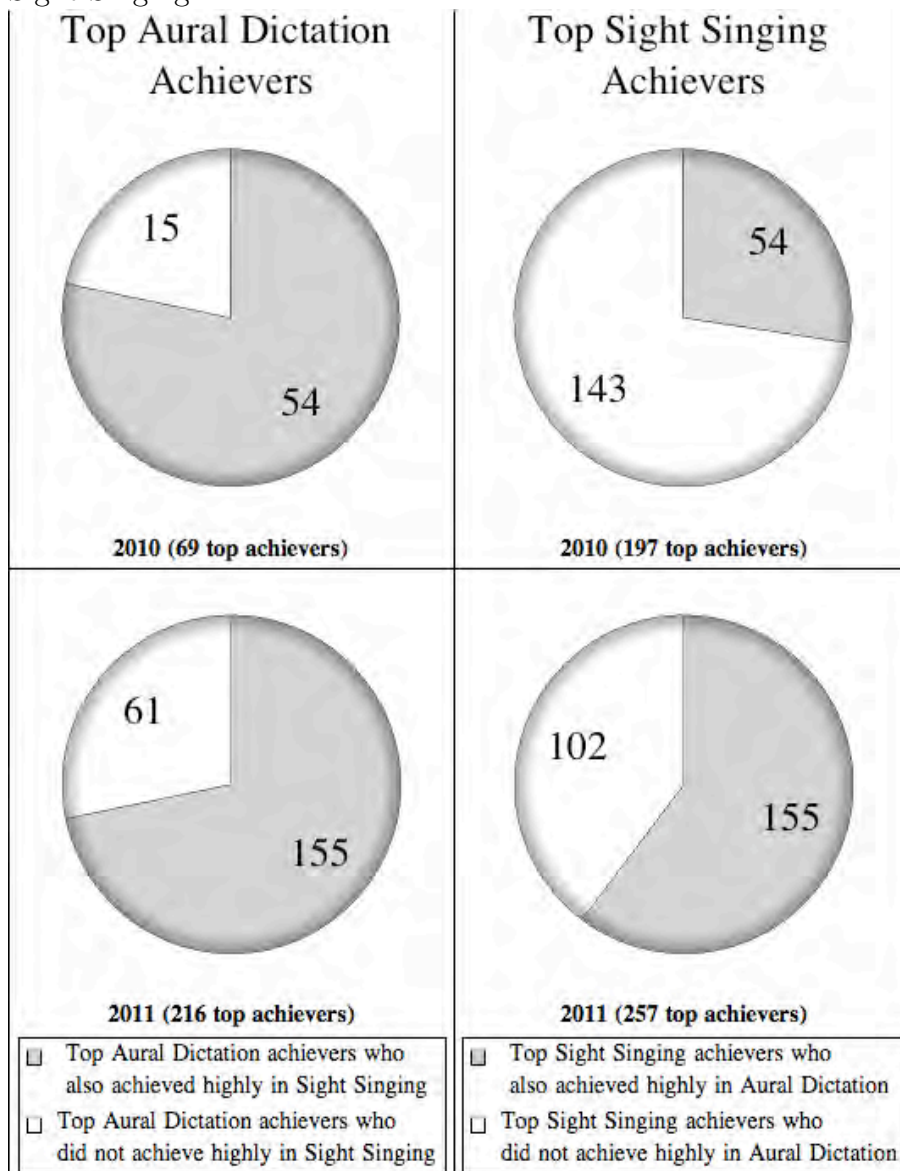
Data Analysis of Top Achievers

For each of the six possible skill combinations, four pie charts are shown. On the top left appears the top achievers in 2010 for skill a , showing in grey the subset of those who were also top achievers in skill b for 2010. The pie chart on the top right shows the converse: the top achievers in skill b , showing in grey the subset of those who were also top achievers in skill a . The lower charts show the same information for 2011. Skill pairs for which there is considerable proportion of joint high achievement may be readily identified.

1. Aural Dictation and Sight Singing

Figure 8.11 compares the results for top aural dictation achievers with top sight singing achievers. In 2010, a large proportion of top aural dictation achievers were also top achievers in sight singing. However only a small proportion of top sight singing achievers were also top achievers in aural dictation. In 2011, a similar trend can be noted, although the difference between skill overlaps is less significant. It may be seen that the 2010 top aural dictation achievers were most likely to also be top achievers in sight singing. Thus, achievement in the multi-part aural dictation of 2010 may be a useful predictor of success in sight singing.

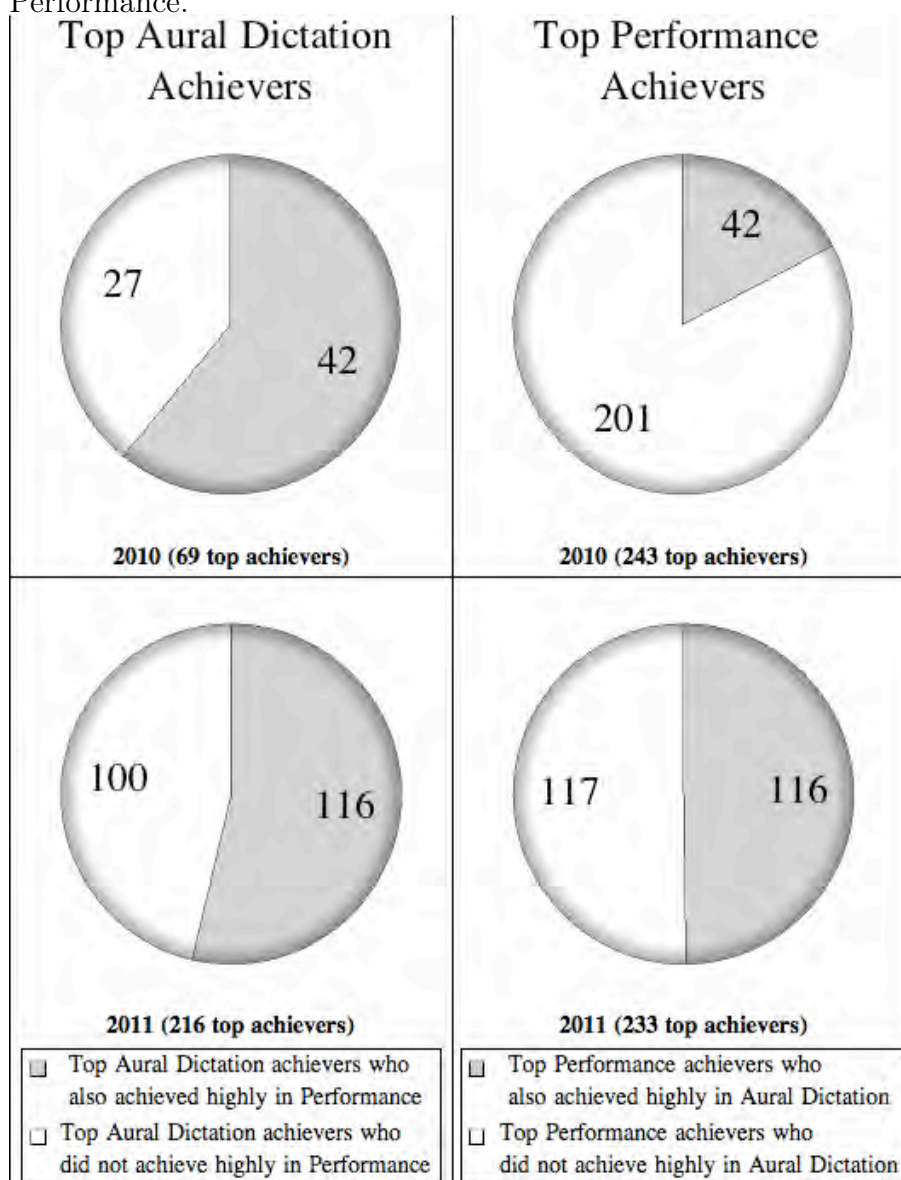
Figure 8.11: Pie Charts Comparing Top Achieving Students for Aural Dictation and Sight Singing.



2. Aural Dictation and Performance

Figure 8.12 compares the results for top aural dictation achievers with top performance achievers. In 2010, a large proportion of top aural dictation achievers were also top achievers in performance. However, only a small proportion of top performance achievers were also top achievers in aural dictation. In 2011, there is only a marginal difference between those who achieved in one skill and those who achieved in both skills. It may be seen that the 2010 top aural dictation achievers were most likely to also be top achievers in performance. Thus, achievement in the multi-part aural dictation of 2010 may be a useful predictor of success in performance.

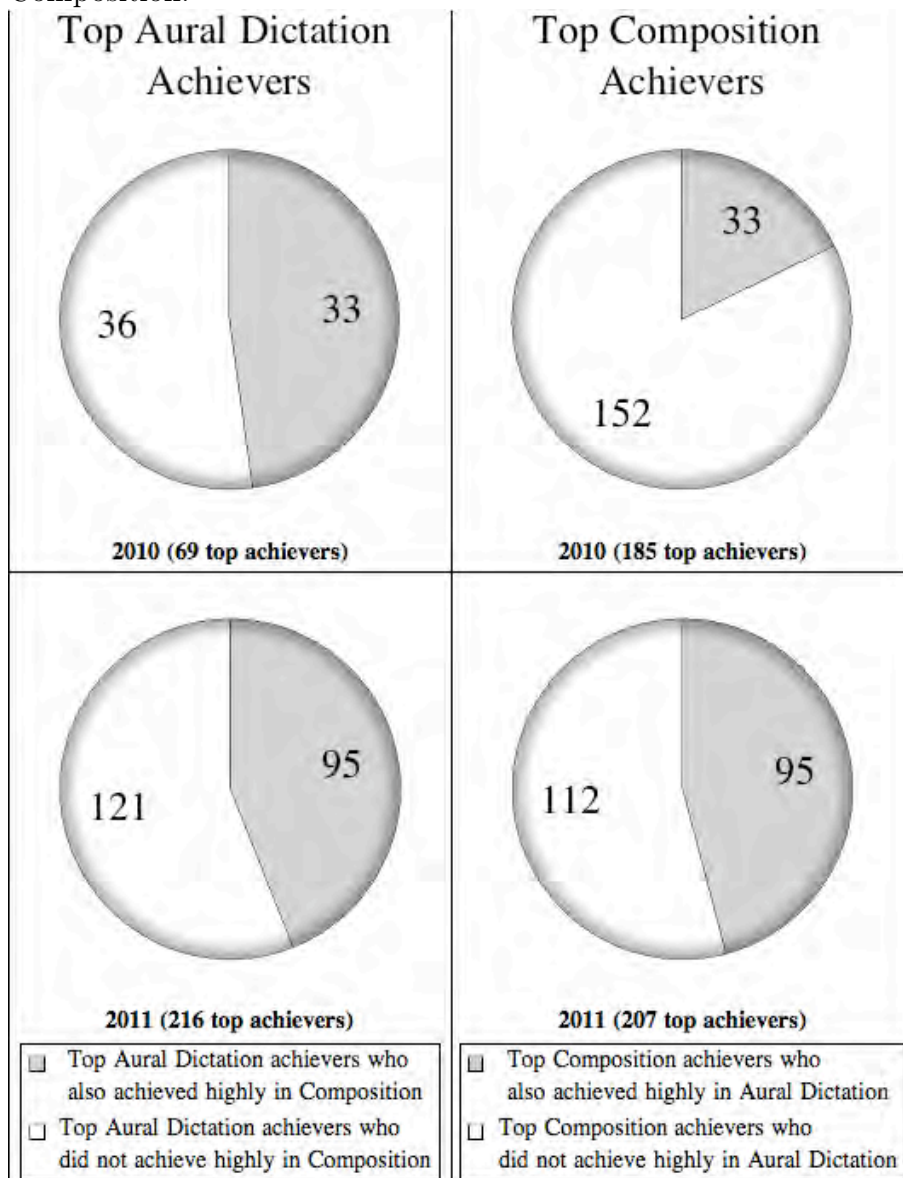
Figure 8.12: Pie Charts Comparing Top Achieving Students for Aural Dictation and Performance.



3. Aural Dictation and Composition

Figure 8.13 compares the results for top aural dictation achievers with top composition achievers. In 2010, a significant proportion of top aural dictation achievers were also top achievers in sight singing. However only a small proportion of composition top achievers were also top achievers in aural dictation. In 2011, there is only a marginal difference between those who achieved in one skill and those who achieved in both skills. It may be seen that the 2010 top aural dictation achievers were more likely to also be top achievers in composition. Thus, achievement in the harder aural dictation of 2010 may be a useful predictor of success in composition.

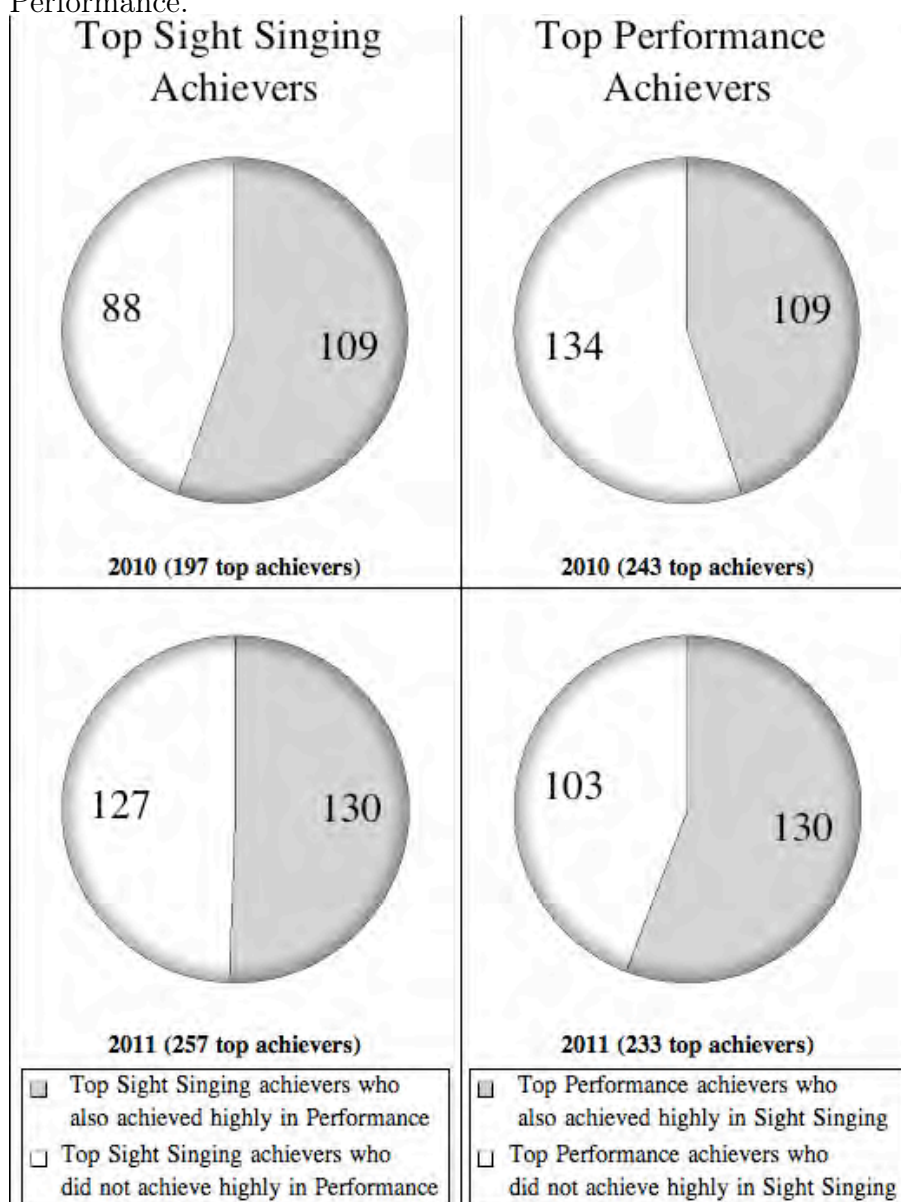
Figure 8.13: Pie Charts Comparing Top Achieving Students for Aural Dictation and Composition.



4. Sight Singing and Performance

Figure 8.14 compares the results for top sight singing achievers with top performance achievers. In 2010, there is only a marginal difference between those who achieved in one skill and those who achieved in both skills. This phenomenon is similar for 2011. Due to the close proportions of all four charts, none suggest any significant prediction of success.

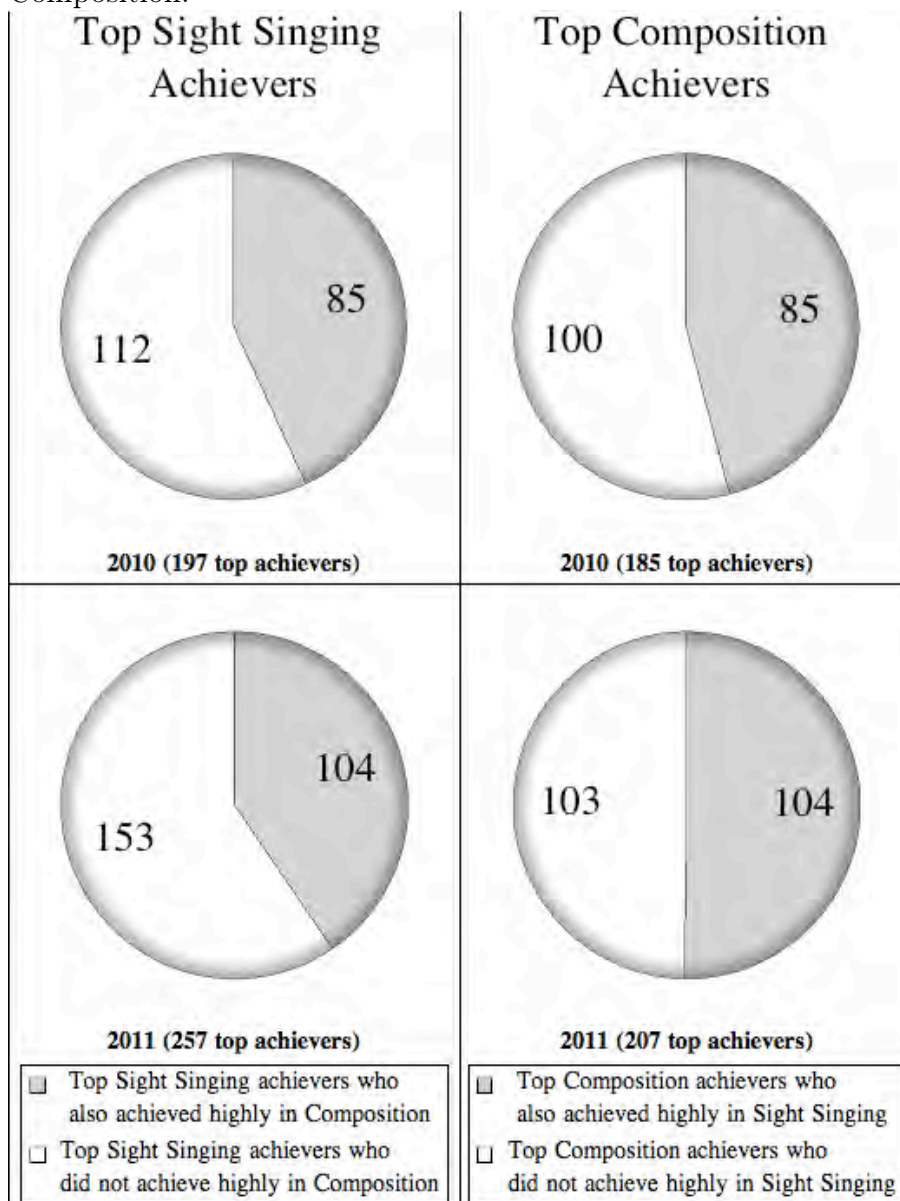
Figure 8.14: Pie Charts Comparing Top Achieving Students for Sight Singing and Performance.



5. Sight Singing and Composition

Figure 8.15 compares the results for top sight singing achievers with top composition achievers. In 2010, there is only a marginal difference between those who achieved in one skill and those who achieved in both skills. In 2011 there is slightly greater difference between the proportion of top sight singing achievers and top composition achievers. However the difference is not significant. Due to the close proportions of all four charts, none suggest any significant prediction of success.

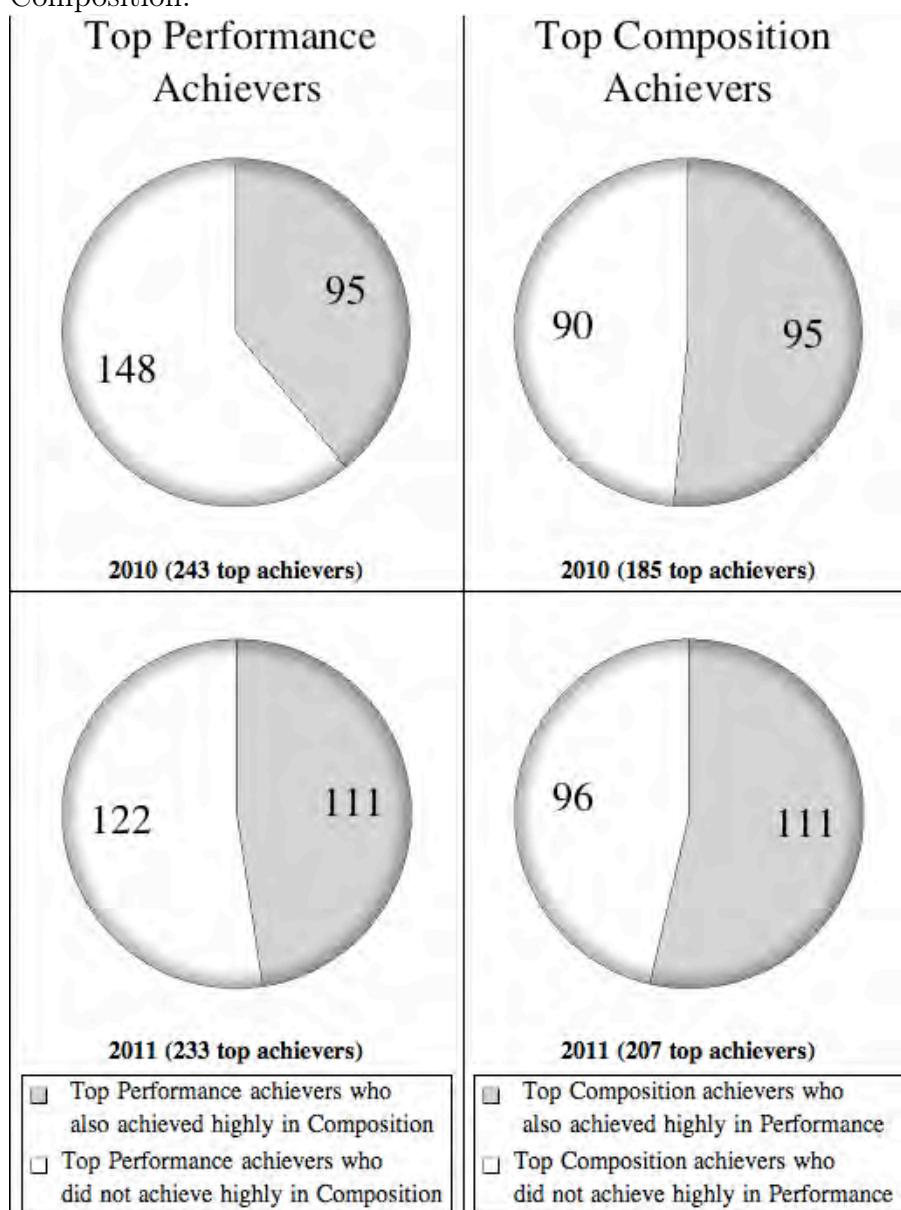
Figure 8.15: Pie Charts Comparing Top Achieving Students for Sight Singing and Composition.



6. Performance and Composition

Figure 8.16 compares the results for top performance achievers with top composition achievers. In 2010, there is some difference between those who achieved in one skill and those who achieved in both skills, although the difference is not significant. In 2011 there is less difference between the proportion of top performance achievers and top composition achievers. Due to the close proportions of all four charts, none suggest any significant prediction of success.

Figure 8.16: Pie Charts Comparing Top Achieving Students for Performance and Composition.



General Trends and Findings

The method of choosing individual marking ranges for each skill area resulted in a fairly consistent number of students for each year in each skill (see Table 8.3). The only exception was for the 2010 multi-part aural dictation which resulted in significantly fewer top achievers. This smaller number indicates that the multi-part aural dictation question was the most successful skill for differentiating top achievers from the cohort.

Table 8.3: Number of Top Achieving Students for Each Skill Area

Skill Area	Number of Top Achievers 2010	Number of Top Achievers 2011
Aural Dictation	69	216
Sight Singing	179	257
Performance	243	233
Composition	185	207

Figures 8.11, 8.12 and 8.13 indicate that the 2010 multi-part aural dictation could be used as a predictor of success in all of the other three skill areas. If a student is a top achiever in the multi-part aural dictation, it is most likely that they will also be a top achiever in one or more of the other three skills.

Summary of Findings from the Quantitative Method

Two main methods were used to analyse the HSC Music 2 examination data. Firstly, each of the major skills was tested for strength of correlation and compared between 2010 and 2011. These correlations could be considered to be low. However, within this particular educational context the findings should still be considered fairly significant, particularly given the large size of the cohort. Aural dictation and sight singing were found to have the highest correlation, followed by performance and composition.

The second method involved the results of just the high achievers. This tool was specifically designed to determine whether high achievement in any one skill may act as a predictor of success in other skills. The main result here was that students who achieved high results in the multi-part aural dictation question from 2010 were more likely to do well in the other areas of sight singing, composition and performance.

Chapter 9

Integration of Findings from Reflective Research and Quantitative Analysis

To investigate relationships between the skills of aural dictation, sight singing, performance and composition, two main methodologies were used. These methodologies produced somewhat different results. The reflective research method found that in some cases, the development of any one skill aided the development of other skills. Though the statistical data produced fairly low correlations, some skill combinations were still found to have significant correlational strength. When data was isolated for the top achieving students, comparative analysis provided some statistically important results. These indicated that multi-part aural dictation results could be used as a predictor of success in other skills. Through the process of triangulation, the findings from each method are integrated into a focused discussion on the six pairs of musical skills.

1. Aural Dictation and Sight Singing

The reflective research method found very strong links between the skills of aural dictation and sight singing. The researcher noticed the mutual improvement of aural dictation and sight singing when practiced together. Also noted was the improvement of notational audiation skills as a result of practicing aural dictation and sight singing together. These findings attest to a strong relationship between these skills.

The correlation results between aural dictation and sight singing were the highest out of all possible combinations. Additionally, the data isolating top achievers indicated that top achievement in multi-part aural dictation is a predictor of success in sight

singing. All methods of analysis support the premise that aural dictation and sight singing are skills which are strongly related.

2. Aural Dictation and Performance

The reflective research method found some subtle links between the skills of aural dictation and performance. Though these two skills were intentionally practiced separately (aural dictation for the first part of the project and performance for the second), there were some connections. The process of practicing complex aural dictation skills contributed to the development of listening skills which aided successful performance acquisition and execution. Due to the multi-faceted nature of performance acquisition, it is noted that while aural dictation skills were a contributing benefit there were many other skills involved which were not within the focus of this study.

While the statistical correlation between aural dictation and performance was fairly low, the data isolating top achievers indicated that top achievement in multi-part aural dictation is a predictor of success in performance. This indication supports the premise that aural dictation and performance are somewhat related.

3. Aural Dictation and Composition

The reflective research method found very strong links between the skills of aural dictation and composition. These two skills were practiced in an integrated manner which was deemed very successful. Aural dictation was used as a primary method for producing compositional material. Throughout the process, aural dictation skills were observed to have a direct impact on the development of compositional skills. As the researcher developed more complex aural dictation skills there was noticeably increased confidence in compositional output. These findings attest to the strong relationship between aural dictation and composition skills.

While the statistical correlation between aural dictation and composition was fairly low, the data isolating top achievers indicated that top achievement in multi-part aural dictation is a predictor of success in composition. This indication supports the premise that aural dictation and composition are significantly related.

4. Sight Singing and Performance

The reflective research method found some subtle links between the skills of sight singing and performance. Though these two skills were intentionally practiced separately (sight singing for the first part of the project and performance for the second),

there were noticeable connections. The process of practicing sight singing skills contributed to the development of listening skills which aided successful performance acquisition and execution. Due to the multi-faceted nature of performance acquisition, it is noted that while sight singing skills were a contributing benefit there were many other skills involved which were not within the focus of this study.

While correlations between sight singing and performance were not high, they do indicate that some relationship exists between these skills. However, the data isolating top achievers identified neither skill as a useful predictor of success. In this case, both the reflective research method and aspects of the quantitative method found similar degree of relationship between sight singing and performance.

5. Sight Singing and Composition

The reflective research method found very strong links between the skills of sight singing and composition. These two skills were practiced in an integrated manner which was deemed very successful. Sight singing was used as a primary method for checking and correcting compositional material. Throughout the process, sight singing skills were observed to have a direct impact on the development of compositional skills. As the researcher developed more confident sight singing skills there was noticeably increased confidence in compositional output. Both findings attest to the strong relationship between sight singing and composition skills.

While correlations between sight singing and composition were not high, they do indicate that some relationship exists between these skills. However, the data isolating top achievers identified neither skill as a useful predictor of success. While the findings from the quantitative method are not as strong as the findings from the reflective research method, it does support the premise of a strong relationship between sight singing and composition.

6. Performance and Composition

The reflective research method identified strong links between the skills of performance and composition. These two skills were practiced in an integrated manner which was deemed very successful. While performance was used as a secondary method for checking and correcting compositional material, it was used as a primary method for finalising performance directions such as fingering, dynamics and articulation. Though performance was only employed in the latter part of the compositional process, it had a vital influence on the final result. However it was also noted that the process of practicing for the final performance of the works was hindered by the imposed interactions between performance and composition for this

project. These findings indicate a fairly strong relationship between performance and composition skills.

The correlation results between performance and composition included the second highest out of all possible combinations. However, the data isolating top achievers identified neither skill as a useful predictor of success. In this case, the reflective method and quantitative method found that performance and composition are skills which are partially related.

Part IV

Conclusions

Implications for Further Research

This research project was made possible by the provision of examination data from the NSW Board of Studies. Additional years of such data would enable more definitive research along similar lines. Data could also be obtained from other Australian states. A longitudinal study of this data would result in more robust findings.

There are many more ways that additional data from the Board of Studies could be used for further research into musical skills and music education. In the field of composition research, the influences of other musical skills on the composition processes of high school students could be studied. In some cases Board of Studies markers will request the process diary associated with a student's composition for the purposes of verification. If these process diaries could be accessed for research purposes they may provide interesting data for further investigation. In particular, such research may reveal compositional approaches that were used by top achieving students. Particular attention could be placed on the use of aural and performance skills in HSC music compositions.

Further research could be conducted into the fields of performance and composition using Board of Studies data. One interesting area would involve those students who compose for their preferred instrument of performance. There may be a link between the chosen performance instrument and high achievers in composition. Another aspect could be an analysis of the quality of live performances in which students perform their own compositions. Another interesting study would involve looking at the different instruments on which students perform, and identifying any relationships between the choice of instrument and the aptitude shown by the student for sight singing.

One data component that was not utilised in this study was the mark set for musicological analysis. Further research could investigate links between musicology skills and any other musical skills tested by the HSC.

Further research might also investigate stylistic links between sight singing and aural skills. In the HSC exams the aural dictation is often taken from works of different historical periods. In contrast, the sight singing exercises are usually folk tunes or melodies that take on folk song qualities. Research participants could complete dictations and sight singing exercises from the same historical periods after which the correlations could be re-evaluated.

More specifically, the contrasting results of the two methods of research provide specific avenues for further research. While both methods found some links between aural dictation and sight singing, aural dictation and performance, and aural dictation and composition, these links could be evaluated with further research. In contrast, both methods found significantly different results for links between sight

singing and performance, sight singing and composition and performance and composition. These are important fields of research with many opportunities for further investigation to take place.

Final Conclusion

The interdisciplinary nature of musical relationships is aptly captured by Gorow (2009, p. 8): "when composing, be the listener; when orchestrating, be the composer; when copying or conducting, be the performer." This research project sought to investigate relationships between aural dictation, sight singing, performance and composition. The nature of these relationships was considered through a detailed literature review and two different methodological investigations.

An array of literature from music scholarship was explored to consider research that had been conducted on relationships between the focus skills for this study. This investigation drew attention to the multitude of sub-skills which are part of each of the four chosen focus skills. Pedagogical texts conveyed philosophical links between these skills, and many studies investigated the interplay between different musical skills. The literature revealed an assumed premise that strong relationships exist between aural dictation, sight singing, performance and composition. This study was concerned with addressing these empirically untested assumptions.

The relationships between these four skills were investigated through two different methodologies: reflective qualitative research and quantitative analysis. The triangulation process then emphasised the strength of relationships found between each skill combination.

The findings from the reflective research mostly support the assumptions outlined in the literature review. While some skill relationships (such as aural dictation and performance, and also sight singing and performance) were shown to have less relational strength than other skill combinations, this weakness was strongly influenced by the methodological framework devised. Further research should be undertaken in this area to provide more specific results. As the majority of findings for the reflective research resonate with the assumptions in the literature review, this methodology was particularly beneficial for the aims of this study. It is therefore contended that the reflective research method is one of distinct relevance for music scholarship. Most significantly, the reflective method particularly emphasised aural dictation as a key skill for the development of sight singing and composition.

The findings from the quantitative analysis provided correlations that could be considered statistically low. However, in light of the educational context of the data and the size of the cohort, they are statistically robust and suggest some important findings. Aural dictation and sight singing were found to have the strongest correlational relationship. Performance and composition were found to have the second strongest correlational relationship.

Some important perspectives can also be gained by comparing the results of the correlational analysis with the findings in the literature review. The literature high-

lighted the many complexities involved in developing and executing any one skill. These complexities may be another contributing factor behind the low correlations between skills. The skills chosen for analysis may be so complex that isolating numerical results for each skill may not be an effective way of measuring a relationship with other musical skills. If so, further correlational research is required in order to investigate such a possibility.

An important point of congruity among all methods of analysis was the primary role of aural dictation skills. Where the reflective research method highlighted the mutual improvement of aural dictation, sight singing and composition, the correlational method noted strong links between aural dictation and sight singing. Further, the comparative analysis of top achievers indicated that proficiency in multi-part aural dictation acts as a strong predictor of success in sight singing, performance and composition. The common implication of these findings is that there are clear benefits from developing complex aural dictation skills.

When outlining the characteristics of a good musician, Kodály (1974, p. 197) emphasised the importance of “a well-trained ear”. He then went on to express the benefit of a “well-trained intelligence”, “a well-trained heart” and finally “a well-trained hand”. For the making of a good musician “all four must develop together”. The findings of this study demonstrate that the development of multi-part aural dictation skills in particular, contribute to the overall success of the musician.

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Appendix A

2010 Aural Dictation

Figure A.1: Aural Dictation Question from the 2010 Music 2 HSC Examination

Question 2 (8 marks)

This question is based on an excerpt from *Pétrouchka* (1911) by Igor Stravinsky. There is no Score Attachment for part (a).

The entire excerpt will be played ONCE for familiarisation.

Bars 1–8 will be played SIX times for you to answer part (a).

Time:	First playing	—	10 second pause
	Second playing	—	30 second pause
	Third playing	—	1 minute pause
	Fourth playing	—	1 minute pause
	Fifth playing	—	2 minute pause
	Sixth playing	—	2 minute pause

(a) Notate the pitch and duration of the Clarinet 1 in Bb on the score provided.

Question 2 continues on page 7

Question 2 (a) (continued)

Question 2 continues on page 8

“PÉTROUCHKA (1911 BALLET SUITE), STRAVINSKY” is reproduced by permission of the London Australia exclusive agent for Boosey & Hawes Music Publishers Ltd of London.

Appendix B

2011 Aural Dictation

Figure B.1: Aural Dictation Question from the 2011 Music 2 HSC Examination

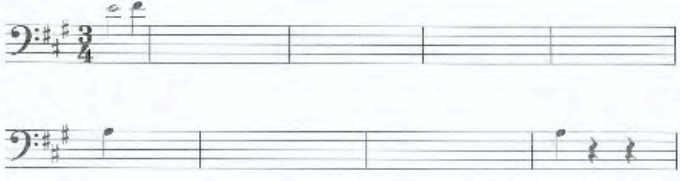
Question 2 (continued)

This question is based on the *Fugue*.

Bars 1–9 of the *Fugue* will be played SIX times for you to answer part (b).

Time: First playing — 10 second pause
 Second playing — 30 second pause
 Third playing — 1 minute pause
 Fourth playing — 1 minute pause
 Fifth playing — 2 minute pause
 Sixth playing — 2 minute pause

(b) Notate the pitch and rhythm of the melody on the staves provided. 5



End of Question 2

– 6 –

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Appendix C

2010 Sight Singing

Figure C.1: Sight Singing Exercises from the 2010 Music 2 HSC Examination



2010
HIGHER SCHOOL CERTIFICATE
EXAMINATION

Music 2

Sight Singing

General Instructions
• Reading time – 2 minutes

Total marks – 5

Sight-singing piece No. 1

- The test may be performed to the given words, or on any open vowel, or sol-fa or solfège.
- The examiner will give you the tonic chord and the starting note, once after handing the test to you, and once again, immediately before you sing the piece.



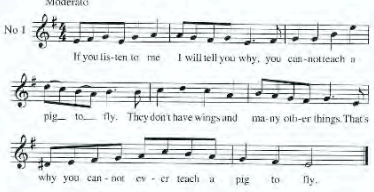
Tonic Chord



Starting Note

Moderato

No 1



Sight-singing piece No. 2

- The test may be performed to the given words, or on any open vowel, or sol-fa or solfège.
- The examiner will give you the tonic chord and the starting note, once after handing the test to you, and once again, immediately before you sing the piece.



Tonic Chord



Starting Note

Moderato

No 2

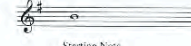


Sight-singing piece No. 3

- The test may be performed to the given words, or on any open vowel, or sol-fa or solfège.
- The examiner will give you the tonic chord and the starting note, once after handing the test to you, and once again, immediately before you sing the piece.



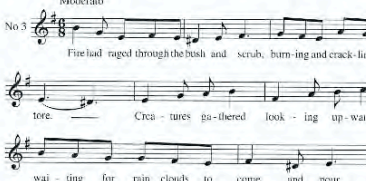
Tonic Chord



Starting Note

Moderato

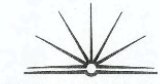
No 3



Appendix D

2011 Sight Singing

Figure D.1: Sight Singing Exercises from the 2011 Music 2 HSC Examination


2011
 HIGHER SCHOOL CERTIFICATE
 EXAMINATION

Music 2
Sight Singing

General Instructions

- Reading time – 2 minutes

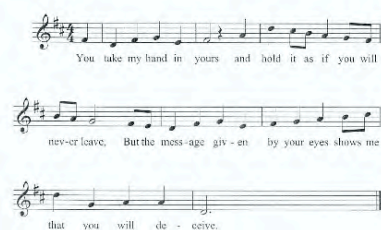
Total marks – 5

Sight-singing piece No. 1

- The test may be performed to the given words, or on any open vowel, or sol-fa or solfège.
- The examiner will give you the tonic chord and the starting note, once after handing the test to you, and once again, immediately before you sing the piece.


 Tonic Chord


 Starting Note



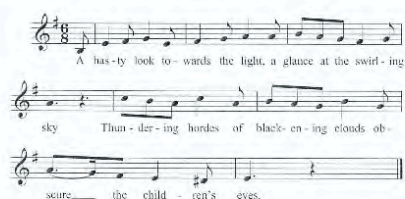
You take my hand in yours and hold it as if you will
 nev-er leave. But the mes-s-age giv-en by your eyes shows me
 that you will de-cide.

Sight-singing piece No. 2

- The test may be performed to the given words, or on any open vowel, or sol-fa or solfège.
- The examiner will give you the tonic chord and the starting note, once after handing the test to you, and once again, immediately before you sing the piece.


 Tonic Chord


 Starting Note



A has-ty look to-wards the light, a glance at the swirl-ing
 sky Thun-der-ing hurdes of black-en-ing clouds ob-
 scure the child-ren's eyes.

Sight-singing piece No. 3

- The test may be performed to the given words, or on any open vowel, or sol-fa or solfège.
- The examiner will give you the tonic chord and the starting note, once after handing the test to you, and once again, immediately before you sing the piece.


 Tonic Chord


 Starting Note



Ten songs I have in-side my head, ten songs that nev-er de-
 part. Ten songs that sing my brain to sleep, ten
 songs that hold my heart.

Appendix E

Composition

“The Bookshelf”

A suite for solo piano

- **Prelude** Left Bookend
- **One** “Maybe its always pepper that makes people hot-tempered... and vinegar that makes them sour”
 - *Lewis Carroll Alice’s Adventures in Wonderland*
- **Two** “So here I am in the dark alone / There’s nobody here to see”
 - *A. A. Milne - In the dark from Now We Are Six*
- **Three** “Never before had he felt so keenly, or with such exquisite joy, the magic and the mystery of beautiful things”
 - *Oscar Wilde - The Young King*
- **Four** “I found that the spot I wanted was not where I had supposed it to be, and was anything but easy to find”
 - *Charles Dickens - Great Expectations*
- **Postlude** - Right Bookend

Prelude

Left Bookend

M. Rogers

Piano

Adagio (♩ = 80)

mp

pp

mp

p

One

Maybe it's always pepper that makes people hot-tempered... and vinegar that makes them sour.

Lewis Carroll – Alice's Adventures in Wonderland

M. Rogers

Piano

$\text{♩} = 100$

ff

4

RH LH RH LH RH

f

sfz

8vb

6

Simile.

f

sfz

f

sfz

8vb

8

f

sfz

8vb

10

ff

sfz

mp

8vb

12

8vb

sfz *mp* *sfz* *mp*

Detailed description: This system contains measures 12 and 13. The upper staff is in bass clef with a key signature of two flats. It features a series of eighth notes with accents, marked with *sfz* (sforzando) and *mp* (mezzo-piano). The lower staff is also in bass clef and contains a steady eighth-note accompaniment marked *mp*. A dashed line labeled *8vb* is positioned below the lower staff.

14

8vb

sfz *mp*

Detailed description: This system contains measure 14. The upper staff continues with eighth notes and accents, marked *sfz* and *mp*. The lower staff continues with the eighth-note accompaniment. The system concludes with a double bar line and a common time signature 'C' on both staves. A dashed line labeled *8vb* is positioned below the lower staff.

15

8vb

ff

Detailed description: This system contains measures 15 and 16. The upper staff is in treble clef and features chords with accents, marked *ff* (fortissimo). The lower staff is in bass clef and contains a simple accompaniment. The system ends with a double bar line and a 5/4 time signature on both staves. A dashed line labeled *8vb* is positioned below the lower staff.

17

8vb

sfz *mf*

Detailed description: This system contains measures 17 and 18. The upper staff is in treble clef and features complex chordal passages with fingerings (1-5, 2-4, 3-1, 4-2) and accents, marked *sfz* and *mf* (mezzo-forte). The lower staff is in bass clef and contains a simple accompaniment. A dashed line labeled *8vb* is positioned below the lower staff.

18

8va

decresc. *rit.*

Detailed description: This system contains measures 19 and 20. The upper staff is in treble clef and features complex chordal passages with fingerings (1-5, 2-4, 3-1, 4-2) and a decrescendo marking *decresc.*. The lower staff is in bass clef and contains a simple accompaniment with a ritardando marking *rit.*. A dashed line labeled *8va* is positioned above the upper staff.

The Bookshelf

Two

So, here I am in the dark alone / There's nobody here to see

A A Milne - In the Dark, from Now We Are Six

M. Rogers

Largo (♩ = 52)

Piano

8va

p

pp

3

5

8

10

13

15

mf

pp

mf

cresc.

8vb

17

8vb

19

8vb

21

freely

sfz

p

8vb

24

pp

p

8vb

27

pp

ppp

8vb

Three

Never before had he felt so keenly, or with such exquisite joy, the magic and the mystery of beautiful things.

Oscar Wilde, The Young King

M. Rogers

Piano

Largo

mp

6

13

p

mp

cresc.

molto rubato

mp

20

f

mp

pp

pp

dolce

ppp

8vb-

The musical score is written for piano and consists of five systems of music. The first system is marked 'Largo' and 'mp'. The second system starts at measure 6. The third system starts at measure 13 and includes the instruction 'molto rubato' and 'cresc.'. The fourth system starts at measure 20. The fifth system starts at measure 28 and includes the instruction 'dolce'. The score ends with a 'ppp' marking and an '8vb-' instruction.

33

8va-----

p

rit.

ppp

8va-----

8vb-----

Four

I found that the spot I wanted was not where I had supposed it to be, and was anything but easy to find.

Charles Dickens - Great Expectations

M. Rogers

Adagio (♩ = 84)

Piano

mp

8

15

tr

20

mf

mp

26

dolce

p

31

rit.

36 $(\text{♩} = \text{♩})$ *8va*-----

39 *8va*-----

44

50 *mp*

57

60 *mf* *8vb*-----

63 *broadly* *8vb*-----

65

8vb-

6

6

66

8vb-

6

6

67

8vb-

6

6

ff

71

Cadenza ad libitum

p

71

pp

ppp

8va

8vb

Postlude

Right Bookend

M. Rogers

Piano

Adagio (♩ = 80)

mp

1 5

4

p

pp

mp

7

2 3 1

rit.

p